UNCERTAINTY AND INNOVATION IN HEALTH POLICY: THE CANADIAN AND NORWEGIAN APPROACHES TO HEALTH PROMOTION

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I Declare that this thesis has been composed by myself and that this work is my own.

Erio Ziglio

To Jane

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FOREWORD

Health promotion policy is still at an embryonic stage, both as part of social policy and as an academic discipline. Although it is a rapidly expanding field, ambiguity as to the definition of health promotion and its objectives has prevented it from having a more incisive impact on health policy.

There is no clear-cut definition of "health", which inevitably poses problems for the formulation of a health promotion policy. Health is a multi-dimensional concept, open to such a wide range of interpretation that approaches to health promotion tend to oversimplify when it comes to which aspects of health to incorporate and which policy means to implement.

It is against this background that the present thesis sets out, firstly, to provide a clearer understanding of the potential range of approaches to health promotion and, secondly, to fill a gap in existing knowledge by specifically examining national health promotion policy-making under conditions of uncertainty. It was necessary to adopt a macro perspective in order to fulfill these twin aims, which accounts for the unusually broad framework of the thesis.

INTRODUCTION

1. The Background

At a time of shrinking resources, the debate on ways of setting health priorities is exacerbated. Even Canada and Norway - countries that have been traditionally generous in the financing of their health sectors - have, since the early 70's, been forced to contain public expenditure.

Expectation from the health services and the outcome of health expenditure have, on the other hand, continued to rise. As a result, the majority of health systems in Western developed nations are experiencing a growing dilemma in deciding how to respond to this situation. Policy decisions are further complicated by the difficulty of evaluating whether a given country is any healthier as a result of the present pattern of health expenditure. Since the 70's a number of studies questioned the effectiveness, cost, and very raison d'etre of the health sector as it is organized today.

Cost-containment in existing health services, and their effectiveness in improving or maintaining health, have forced us to reconsider health priorities and to renew the search for systematic yet politically realistic policy-making approaches. New life is therefore needed to be breathed into the debate on the future of health policy in developed countries. Against this background, health promotion policies can be viewed either as a radical

departure from previous cure-oriented and hospital-based policies (e.g. towards a comprehensive effort in bringing economic, agricultural and social policy in line with health criteria); or as being merely a new version of health education (e.g. the provision of information about what constitutes "healthy behaviour" and which kind of lifestyle changes the individual should be encouraged to pursue). In this latter case health promotion policy could represent a "soft" and "easy" option justifying a reduced financial commitment to national health policy, on the assumption that individuals should take greater responsibility for improving or maintaining their health status.

There are two main sides in the debate on the future development of health policy, which can be summarised as:

(a) the improvement of the efficiency of existing services and programmes, basically through better management; and

(b) the introduction of policies which would make people less dependent on health services.

The latter approach came into being only during the last part of the 70's (although it is not entirely new in the health field; see: Chapter 1, Sections 1.2.2 and 1.4). Broadly speaking, this approach consists of either prevention or self-help (or both). In the Canadian government's working document entitled "A New Perspective on the Health of Canadians", for example, there is an emphasis on preventive strategies and self-help (Lalonde, 1974). Here, prevention and health promotion have been tied to the issue of cost escalation, under the assumption that healthier people will use the health services less. Although this assumption must be regarded with caution (see

Chapter 1., Sections 1.1 and 1.2.2), this deliberate shift is desired by those who think that in most industrialized societies the health systems in fact provide a "national sickness service", rather than a "national health service".

Generally speaking, the prevailing trend in health promotion seems to lie in the area of health education and information. However, there are two different schools of thought about health promotion policy.

The first is mainly individual-oriented. The emerging development of health policy in this case is usually characterized, in Western industrialized countries, by the individualism of health education and self-help. The results of this study show that the Canadian approach belongs to this school.

The second view is well represented by the Norwegian Nutrition and Food Policy [NNFP], which is the most important health-promoting policy being developed in that country. The NNFP attempts to manipulate the environment in such a way as to make it easier for individuals to make "healthy" choices. The emphasis here is not just on individual responsibility and change of individual behaviour through persuasion, but on the link between the individual and his environment (both physical and political).

These two perspectives play an important role in helping governments and organizations to formulate and implement health promotion policies.

2. The Research Objectives

The aim of this piece of research is to present a macro analysis of the approches chosen by Canada and Norway as the two Western developed countries most committed to health promotion policy. In Canada and Norway, radical and diverging approaches to health promotion are currently being implemented. This analysis will concentrate on a specific area of health promotion: nutrition policy.

From a review of the studies on the links between nutrition and health, and on the factors influencing dietary patterns, it is manifest that nutrition policy, as a health promotion strategy, is characterized by high levels of uncertainty. The central elements of this uncertainty are related to the lack of agreement and/or the incomplete state of knowledge, concerning the nature of the problem (e.g. uncertain aetiological evidence linking nutrition to specific health problems), and the ingredients (i.e. potential policy measures) for a successful solution.

Policy-makers in Canada and Norway are faced with just such a situation of uncertainty when formulating health promotion strategy. It is important to know that although knowledge is far from being complete in this field, Canada and Norway are attempting to identify and implement health promotion policies in spite of uncertainty. Thus, the present work sets out to explore three issues:

(1) The rationale upon which health promotion policy decisions are based in Canada and in Norway;

(2) How the two approaches have coped with uncertainty in

the development of the policy chosen; and

(3) How far uncertainty can be considered an acceptable background against which to develop health promotion further.

As a study in policy analysis, this thesis seeks:

(a) to describe the process through which health promotion policy has been formulated and developed in Canada and in Norway;

(b) to evaluate, on a process-oriented basis, the results of the policies chosen by Canada and Norway; and

(c) to prescribe, on the basis of the policy analysis exercise, normative recommendations for future development of health promotion policy-making.

The understanding of the factors and processes underlying the development of health promotion policy is as yet very limited. The aim of this study is to identify the major trends in this policy area and to explore the various sources of uncertainty. The ultimate objective is to contribute to a better understanding of the complex field in which health promotion policy must operate, so that more carefully formulated policy and more precise conceptualization can be applied in the future.

3. Structure of the Thesis

This thesis is divided into four parts. Part I: Chapter 1 discusses the crisis of traditional health policy in Western developed countries and explores possible scenarios for future health policy. Chapter 2 reviews the literature on the links between health and nutrition, providing the background for the subsequent analysis of health promotion

policy issues.

Part II: Chapter 3 deals with the methodology used in the analysis of the Canadian and Norwegian approaches to nutrition policy as a health promotion strategy.

Part III: contains the analysis of the two chosen case studies. Chapters 4 and 5 provide the necessary background for an understanding of why and how a shift towards health promotion policy was thought desirable in Canada and Norway in the mid-seventies. Chapters 6 and 7 analyse the Canadian and Norwegian approaches to health promotion respectively.

Part IV: Chapter 8 comments on the difficulties encountered by Canada and Norway in their attempts to pursue an effective health promotion strategy. An effort is made in this chapter to show the major difficulties in policy formulation and development which will be faced by Western developed countries wishing to implement health promotion policy.
Chapters 9 and 10 analyse present policy-making approaches and provide an insight into the future development of health promotion policy-making.

There are two Appendices related to the methodological instruments used during fieldwork in Canada and in Norway.

PART I:

HEALTH POLICY SCENARIOS AND REVIEW OF THE LITERATURE ON NUTRITION AND HEALTH

Part I is composed of two chapters. Chapter 1 discusses the "crises" of traditional health policy in Western developed countries and assesses the literature on the problem of the limited success of the health services in promoting health. In the first part of the chapter two closely-related issues are explored: (a) the changing disease pattern; and (b) the limitations of medicine in dealing with the new burden of disease.

It is argued that certain types of preventive and health promotion strategies should be given a much higher priority in health policy than has been the case in the last few decades. The chapter concludes by exploring sources of uncertainty in health priority setting and their possible impact on the shape of health policy in the future.

Chapter 2 reviews the literature on the links between nutrition and health. It aims to provide the theoretical background for the analysis of the Canadian and Norwegian approaches to nutrition policy. Canadian and Norwegian materials have been used as far as possible to illustrate the issue.

It goes on to show that dietary habits are determined by demographic, economic, sociocultural, psychological and educational factors. The chapter concludes that, to date, the complex interaction of these factors has been somewhat neglected by researchers.

CHAPTER 1.: HEALTH IN THE FUTURE: SOURCES OF UNCERTAINTY, PROBLEMS AND CHOICES

In this chapter, two closely-related issue will be explored: (a) the change in the disease pattern in Western industrialized nations; and (b) the limitations of medicine in dealing with the burden of new diseases. This chapter is based on the assumption that sources of uncertainty in health priority setting, as well as other aspects of health policy-making processes, stem - directly or indirectly - from these issues. In the final part of the chapter, potential scenarios for future health policy will be dealth with.

1.1 The Change in Disease Pattern

Much has already been published on the fact that in the more advanced industrialized nations there has been a reduction in the massive toll of diseases and death associated with infections and epidemics such as cholera, poliomyelitis, tuberculosis, etc., which affected populations in earlier steges of urbanization (see, among others, Popay et al., 1980; Mckeown, 1971; 1976) [1].

According to available statistics, industrialized nations have, over the past 100 years, witnessed a substantial decline in the significance of acute infectious diseases, both in terms of morbidity and mortality (Mckeown and

Record, 1962; Mckeown, 1965; 1976; Robertson, 1983c; see also: Burkitt, 1973; Omran, 1979). Robertson (op. cit.) points out that just as these infectious diseases have abated, so too has infant mortality; thus modern medicine has increasingly to cope mainly with chronic and degenerative conditions which beset old age (see also: Wadsworth et al., 1971; Powles, 1973; 1977; Draper et al., 1977; Milio, 1976). Tuberculosis, influenza, typhoid, diphtheria and other infectious diseases have been supplanted by cancer, rheumatism, arthritis, afflictions of the digestive and respiratory tracts, mental disorder and heart disease, which are now the main health problems in industrialized societies (Robertson, 1983a; 1983c; Powles, 1973; Mckeown, 1965, Part I).

Some of these contemporary diseases are justly described as "modern epidemics" (see: Dubos, 1959). Their origins lie, at least in part, in the very process of development that has brought so many blessings (see: Popay et al., op. cit., Burkitt, op. cit.; Lalonde, 1974; Milio, 1979). According to the Lalonde Report (Lalonde, op. cit.) these "counterforces" constitute the dark side of economic progress. They include environmental pollution, city living, lifestyles such as indolence, the abuse of alcohol, tobacco, drugs and unhealthy eating habits. Therefore the statement that industrialization has changed our lifestyle, in turn affecting our health problems, has profound implications for both the content and the shape of medical services in advanced society (see: RNMSA, 1975-76; Milio, 1981; Draper and Smart, 1984). Moreover, to affirm that the

current disease pattern is the result of social and economic development implies that future health policy must reach beyond its traditional borders. This point will be examined in more detail later.

One of the best works on the link between social and economic development and the corresponding changes in patterns of health and disease is that of Omran (Omran, 1979). He believes that the changes in pattern of disease and death can be explained in terms of the "theory of epidemiologic transition". This theory focusses on the complex changes in patterns of health and disease over time and in the interactions between these patterns and their economic, demographic and sociological determinants. This epidemiologic transition characteristically moves through three distinct phases:

(i) The age of pestilence and famine;
(ii) The age of receding pandemics; and
(iii) The age of degenerative and man-made diseases.

These three phases are summarized in Fig. 1.A.

Fig. 1.A - Epidemiological Transition Model

Phase 1: Age of Pestilence and Famine

The health scene here is dominated by the high prevalence of endemic disease and chronic undernutrition, accentuated by frequent severe epidemics of infectious disease and famines.

Mortality is high, fertility is sustained at equally high levels and population growth is usually stationary or cyclic.

This pattern characterizes pre-modern and pre-industrial societies, in which communities are tradition-bound and economically underdeveloped, where large families are common, illiteracy is widespread and medical care is inadequate or completely lacking.[2]

Phase 2: Age of Receding Pandemic

Pandemics begin to recede and famines become less frequent.[3] With concurrent changes in endemic diseases and undernutrition, mortality starts to decline. Fertility tends to be high, resulting in an increased population. Whilst pandemics of infection and malnutrition recede, certain other diseases increase either in incidence or in their relative contribution to mortality (or both).

Almost all the developed countries have passed through this phase. In Western societies, pandemics of infection and undernutrition receded during the 18th and 19th centuries in response to the agricultural and industrial revolutions, which brought about improvement in nutrition and, in many cases, living standards.

Phase 3: Age of Degenerative and Man-made Diseases

Further improvement in social, economic and environmental conditions (coupled with great strides in science and technology) occurs, along with economic modernization and increased per capita income during this phase.

Degenerative and man-made diseases [4], cardiovascular diseases, cancer, radiation injuries, occupational hazards, drug addiction, mental illness and geriatric diseases advance further; these degenerative and man-made diseases are responsible for a large proportion of the generally low mortality.

Source: adapted from Omran (op. cit.).

Depending on the pace of change, the transition from one phase to another can follow either the Classical Model of Transition, as has been the case with most Western societies, or the Accelerated Model of Transition, as occured in Japan, which experienced a rapid and intensified industrialization, taking only a few decades in the 20th century, or the Delayed Model of Transition, occurring in most of the developing countries.

Although Omran's work throws light on the determinants of changing patterns of health and diseases, it is not clear if his study is only a retrospective analysis of epidemiological data. If not, it fails to identify possible scenarios for the future. In addition, Omran's model fails to consider those situations in which two (or even all three) phases of the model can be present simultaneously. This is the case of many developing countries or even the geographical or ethnic variations in health and diseases in more developed countries (see: Bash, 1978; WHO-UNICEF, 1978; Edwards, 1983; Townsend et al., 1982; see also Lee and Mills, 1983).

The work of Omran, although it incorporates the common drawbacks of any attempt to use ideal-type categories for classifications, provides a sort of explanation of what Dubos, in describing the current disease pattern, labelled "the diseases of civilization" (Dubos, 1959). Several authors reach similar conclusions (see: Burkitt, 1973; Draper et al., 1977; Popay et al., 1980; Milio, 1979; 1981, chap. 2; see also the works of Mckeown, 1976; Illich, 1975;

Powles 1973; 1977).

In their work, Draper and his collagues provide examples of the link between economic growth and specific disease or health risks. In Draper's study, specific diseases, accidents and problems of risks are associated with economic categories such as "production", "consumption" and "distribution". The works of Milio provide further evidence of the fact that contemporary illnesses and deaths are rooted in the nature of our affluent, energy-intensive, competitive society (Milio, 1976; 1977; 1979). From this evidence she derives some possibilities for developing new and more effective strategies (with an ecological slant) for dealing with contemporary illness patterns (see also Milio, 1980; 1981a, Parts III & IV).

In conclusion, we can say that, with reference to trends in health and diseases, modern medicine has increasingly to cope with the degenerative conditions of old age and lifestyle-related diseases. Degenerative conditions and lifestyle-related diseases are not only the most substantial causes of death and morbidity, but also the most intractable health problems in industrial societies. Wadsworth et al. (1971) point out that as opposed to the relatively brief and normally well-defined (acute) disease-process of infectious illness, degenerative diseases are chronic as to duration, insidious in their onset, irregular and episodic in their manifestation of symptoms and multi-factorial in their aetiology (see also: Morris, 1965; House, 1979; Robertson, 1983a; 1985).

Before going on to the next section, it is worth drawing

attention to the following considerations.

1. It would be wrong to conclude that the industrial economy of developed countries inevitably results in high mortality from non-infective causes. Powles (1977, p. 306) points out that:

> "The mortality experience of high income groups in many countries and the national record of Sweden make it clear that life in an industrial economy can be compatible with reasonably low death rates, providing other factors are favourable".

On the other hand, Powles notes that the very low death rates in areas such as non-industrialized rural Greece demonstrate that increased income is hardly a pre-requisite for lower mortality from non-infective causes (see also: WHO, 1975).

2. The relationship between lifestyle and health status is a very complex one and there is not yet complete evidence of the degree to which lifestyle is a risk factor in the modern burden of mortality and morbidity. This issue will be explored in the next chapter. [5]

3. It is important to point out that, in the view of many authors, it is <u>indiscriminate</u> economic growth that conflicts with public health. This means that it is possible to pursue economic policies that can promote (or at least, not undermine) public health. This, however, implies also a "new" role for modern medicine in the promotion of public health (see: Hancock, 1981; 1982a; Powles, 1973; 1977; Wolman, 1977; Recht, 1980; Snyder, 1982).

4. Trends in health and disease confirm the "onion" principle enunciated by Wadsworth and his colleagues (1971). This principle states that for any population a condition of absolute health is impossible, because as soon as a predominating set of illnesses is brought under control, another "layer" is revealed. This was not understood by the pioneer architects of the British NHS, who believed that once medical care was available to everyone, illnesses and the resources to provide such care would be substantially reduced. In this sense, if modern medicine, or other factors, save individuals from early death, it may be not only redefining morbidity but actually increasing it (see: Horrobin, 1978, pp. 11-12). This principle also confirms the medical-anthropological notion that diseases, health and illnesses are culturally determined (for a review of studies in this area see: Lieban, 1973; see also: Engle, 1963; Foster, 1976; Young, 1983a; 1982). In fact, certain common events such as colds and minor injuries in our culture require treatment or even days off work, whereas in the past they were not recognized as health problems.

1.2 The Limitation of Modern Medicine

In this section I shall concentrate on the past and present limitations of modern medicine in the context of promoting health. [6]

1.2.1 A Retrospective Look at the Contribution of Medicine to changing the Pattern of Disease

Many authors have attempted to assess the role of Western medicine in shaping our present disease pattern (what Omran, op. cit., calls the "Age of Degenerative and Man-made Diseases"). The works of Mckeown (1965; 1971; 1976) Powles (1973), Fuchs (1974) and Illich (1975; 1977) indicate that modern medicine, with its clinical orientation developed since the mid-nineteenth century, has played a relatively marginal role in bringing about this change. According to these authors, the change can be largely attributed to improvements in nutrition and in the general living standards of the population in industrialized countries.

Omran (op. cit.) is also aware that in developed countries, the fact that pandemics of infection receded during the 18th and 19th centuries was more a response to social, economic and environmental changes than to medical improvements. In fact, the latter were few and came too gradually and too late to be responsible for the changes in health and disease patterns. Miller (1973) points out that:

> "The striking decline in the incidence of tubercolosis during the middle years of the

> nineteenth century, for example, was almost certainly related to improved nutritional standards. The only specific contribution of medicine to this process was the widespread use of vaccination against smallpox after 1800, an empirical technique that long preceded the first faint glimmerings of knowledge about immunology. Cholera was similarly brought under fairly effective control by hygienic measures years before the causal organism was recognized by Koch in 1883, and even before the germ theory of infectious disease was formulated by Pasteur in the 1860s (Miller, op. cit., p. 1).

To argue that the transition to the "Age of Degenerative and Man-made Diseases" is primarily related to changes in the environment, in the nutritional status of the population, in the supply of clean water, in the effective disposal of excreta, etc., rather than to specific medical interventions may, however, offer a misrepresentation of the story. The work of Illich (1975), for example, underestimates the role of the medical profession in contributing to the change. Horrobin, in reply to Illich's arguments, points out that:

> "In many cases it was doctors who were stimulated and provoked by their contact with disease, who saw the relationships between nutrition, water supply, sanitation and illness, and who forced authorities to take action" (Horrobin, 1978, p. 9).

It is a distortion to say that the medical profession plays no part in changing disease patterns simply because the method used to control a given disease is non-medical. Indeed, most doctors feel that the modern epidemics of heart diseases, cancer, ulcers, etc., can be reduced by measures which are not specifically medical (see: Horrobin, op. cit.; see also: Lever, 1977).

Having said this, however, a contradiction emerges when considering current trends in Western medicine. The last decades have, in fact, witnessed the most dramatic expansion ever in medical knowledge and technology. This expansion has emerged from, and has tended to further consolidate, the dominance of clinical medicine. As a consequence of these developments, modern medicine has become increasingly specialized and dependent on (expensive) hospital-based techniques and facilities (Robertson, 1983a; see also: Mechanic, 1978, Part V; 1976, Parts I & II; Illich, 1975; 1977; Powles, 1973; 1977; Selim, 1979; Hancock, 1982a; 1982b). On the one hand, this development has brought about the conquest of many health problems, facilitated the development of life-saving operative techniques and provided greater knowledge of the physiological and biochemical functions of the human body. On the other it has left medicine to cope with an increasing number of diseases and degenerative conditions of multiple aetiology and long duration, on which the impact of modern medicine has been disappointing.

In conclusion, the effectiveness of modern medicine in the change of the disease pattern of developed countries is debatable (see also Section 1.2.2).[7] However, when medicine has to face contemporary health problems there are reasons for advocating:

(i) a transformation in the role of modern medicine and current medical services in dealing with diseases;

(ii) a reassessment of the major health problems, their aetiology and their relationship to health; and

(iii) an identification of a more positive role of the state and the individual in promoting social and individual health

(see following sections).

1.2.2 The Limitation of Modern Medicine: a Prospective View

Many critical studies exist on the recent contribution of modern medicine to the improvement of health (Mckeown, 1965; 1976; Cochrane, 1972; Powles, 1973; 1977; Illich, 1975; 1977; Fuchs, 1974; Carlson, 1975). Despite differences in emphasis and perspective, these authors recognize that in the development of modern medicine there has been much valuable progress in sympton relief, allergy treatment, pain-killing, drugs, etc.. However, these authors point out that the overall outcome of recent progress in the field of health and health problems in general is not as dramatic as is widely believed.

Although not all studies are sceptical about the present and future contributions of modern medicine in improving health in industrialized countries (see Keen and Jarrett, 1976; Simon, 1983), a number of authors believe that medicine is facing the problem of "diminishing returns" (Powles, 1973; 1977; Illich, 1975). This means that, within the health systems of industrialized countries, increased input will determine only marginal outcome. From a theoretical point of view, this means that either

(a) the system has reached the level of maximum efficiency and effectiveness; or, in anthithesis,

(b) the effectiveness-efficiency ratio is extremely low.

Paradoxically, probably both explanations co-exist in modern medicine.

The first explanation would, for instance, justify the difficulty experienced by modern medicine in further reducing infant mortality in developed countries. The second could be explained by the fact that twentieth-century medicine has not been able to improve total life expectancy from the age of 45 (particularly in the male population). This figure has in fact remained more or less constant over the past 80-100 years. Another example here is the ineffectiveness of modern medicine in dealing with lifestyle-related diseases. A closer examination of these diverging explanations uncovers different points of view on medicine and on the conceptualization of health and diseases. These different viewpoints have characterized the debate on the relevance, effectiveness, efficiency and future role of modern medicine in Western developed nations.

According to Draper and his colleagues (1977; see also: Popay et al., 1980) the myths of "Hygieia" and "Asclepius" symbolize the never-ending oscillation between two different points of view in medicine. Dubos (1959) notes that:

> "For the worshippers of Hygieia, health is the natural order of things, a positive attribute to which men are entitled if they govern their lives wisely. According to them, the most important function of medicine is to discover and teach the natural laws which will ensure a man a healthy mind in a healthy body. More skeptical or wiser in the ways of the world, the followers of Asclepius believe that the chief role of the physician is to treat disease, to restore health by correcting any imperfections caused by the accidents of birth or life" (Dubos, op. cit., p. 109).

Although the contrasting concepts of health represented by the myths of Hygieia and Asclepius are over 2000 years old, they are, according to Draper, very much alive today

(Draper, op. cit.).

The major indicators of the limitations of modern medicine have, of course, been substantiated by the followers of hygieia. However, in my view, the aim should not be to deny, or overlook, the achievement of modern medicine, but to document the nature and the magnitude of its limited role in the promotion of public health. McKeown (1976) has, in my opinion, been able to enlighten the debate in a much more effective way than other scientists. McKeown's work is also important because it clarifies certain aspects of the debate which have been exaggerated by other authors. McKeown (op. cit.) makes it clear that further improvements in health are not confined to a debate about choosing between Hygieia or Asclepius; rather, it is a debate about whether advanced industrialized societies can strike an appropriate balance between the two. It is implicit that, at the present, the balance is wrong (see also: Draper, 1977; Popay et al., op. cit.; Hancock, 1980; 1982a; 1982b; Illsley, 1980, Chapters 4 and 5).

The latter argument implies the need for a shift in health priorities and resource allocation, which is not a straightforward task in Western industrialized nations. This shift will embody many of the uncertainties which will be mentioned in the final two Chapters. Moreover, it requires an increased awarness on the part of both the medical profession and society as a whole of the environmental and social causes of diseases. However, the political and technical feasibility of producing such a

shift seem to conflict with the increase in corporate power and the economic policies of many industrial societies (see: Tsalikis, 1980). Uncertainties about (i) resources; (ii) political will; (iii) lack of agreement on the ethics of resource allocation, among others, may be obstacles in the process of finding a more appropriate balance between Hygieia and Asclepius. These uncertainties can also make it more difficult to generate likely scenarios for the role of medicine and health policy in industrialized Western countries. These issues will be briefly outlined below (for a more detailed analysis of these issues see: Ziglio, 1981).

1.3 Sources of Uncertainty and Major Perspectives in Health Priority Setting

The forms of uncertainty surrounding health policy are multifarious (see: Chapters 8, Sections 8.3.1; 8.3.2; and 9, Section 9.2.1). Uncertainties, particularly in periods of resource shrinkage, make the problems of priority setting and resource allocation increasingly difficult. The following list (by no means exhaustive) throws light on the peculiarly varied nature of the indeterminates to which health planners must pay attention (see Edwards, 1983; see also Royal Commission on the NHS, 1979):

a) changes in political climate which may limit or expand the scope for priority setting and resource allocation;

b) resource shrinkage and consequently widening gaps between need and demand and the resources available to meet them;

c) socio-demographic changes consisting both in the demographic make-up of the population and in social roles;

d) changes in morbidity and mortality patterns;

e) changing perceptions of, and sensitivities to, health and illness;

f) changes in medical technology.

In this Section I shall briefly outline only the major uncertainties related to the desire to shift health priorities in order to have a more appropriate balance between "Hygieia" and "Asclepius", as mentioned in the previous section. Such uncertainties (see: Sections 1.3.1; 1.3.2) are the most common problems affecting future health planning activities in any attempt to promote a radical shift in health priorities.

1.3.1 Uncertainty about resources

Apart from the problem of the shrinkage of resources experienced by many industrialized nations at a time of negative (or slow) economic growth, there is also uncertainty as to the use of available resources, particularly as regards the relationships between input and output.

New health goals imply a change in inputs (manpower, organizational structure, financial resources, technology, etc.) in order to achieve desired outcomes. During the 70's, many countries significantly reorganized their health system (e.g. U.K., Italy, Finland), with an (greater or lesser) effect on inputs. In order to attain "new" objectives, implying a (more or less radical) shift from the past, it is vital to minimize the uncertainty of the relationship between input and output in the health system. A variety of questions should be addressed:

-- Are the inputs logically related to the desired outcomes? (See for example: Thunhurst, 1982)

-- To what extent are changes in input connected with changes in outcome? (See: Ziglio, 1981, Chapter 1; 1985)

-- What is the level of obsolescence of our inputs?

-- What is the best combination of inputs for high levels of efficiency and effectiveness?

-- Which rationalities are to be taken into consideration and which agencies are to be involved in the planned change of inputs? (See: Chapter 9, Sec. 9.3.1)

-- If a change in output is needed, what characteristics should the new input have? Would it be enough to reorganize the system and (or) re-train staff; or would we need a new organizational structure and new health professions?

-- What are the possible repercussions of the implementation of a change in input on factors such as cost,

legislation, political conflict, etc? (See: Arnold et al., 1971, Chapter 11; Rodwin, 1984, Parts II & III)

There are dangers in devising new health priorities without having sufficiently analysed the degree of change in input of our system. Particularly where "radical change" is needed, or advocated, we should not step away from the above questions (see Ziglio, 1981; Bertin et al., 1981)

1.3.2 Lack of agreement on the ethics of resource allocation

Boyd (1979) analyses four different arguments behind resource allocation. In his work, the differing assumptions and ethics in considering health matters are related to the following perspectives:

(a) the "ecological" and "epidemiological";
(b) the "clinical";
(c) the "administrative"; and
(d) the "egalitarian".

In Fig. 1.8 I have attempted to summarize the main features of these perspectives. Suffice it to say here that the lack of agreement on the ethics of resource allocation is also reflected in concepts such as "need"; "justice"; "equity", etc., which are themselves affected by ethical considerations. There is no space to examine this dilemma in detail, and certainly no solution to it can be put forward at this stage, but it has to be recognized as a major unresolved problem for health planners and policy makers.

Fig. 1.8 - Ethics of Resource Allocation

Ecological and Epidemiological Perspective

Priorities should be geared to whatever helps to restore a greater degree of equilibrium between man and other forms of life.

It advocates a shift of emphasis away from traditional biomedical research to epidemiological and ecological, and from acute interventionist medical care to health education and environmental medicine.

Clinical Perspective

There is no justification, here, for diverting resources to activities whose value is not only unproven but unprovable.

It advocates more concentration of efforts on what medicine can do and ensures that it does it better.

Administrative Perspective

It aims to establish the most efficient and effective distribution of resources.

It advocates a fair system of rationing the available resources among geographical areas, population groups, disease and dependency groups, different services and agencies, etc..

Egalitarian Perspective

Priority should be given to solving the problem of poverty and social deprivation which are seen as the main causes of health problems within a population.

It advocates measures for diminishing social class differentials in health.

Source: adapted from Boyd (1979).

Edwards (1983) argues that perhaps the single greatest problem facing health planners is that they are poorly equipped for making what must ultimately be moral choices. I am not sure if it will ever be possible fully to equipe them for such a task; I also wonder about the desirability of such a situation, as this might reduce the whole matter of health priority to a merely technical activity. As far as future health priority setting is concerned, there is no way we can avoid facing dilemmas. However, the following points can at least help us to avoid being naive when approaching this complex matter.

1. It is self-evident that most of the arguments outlined above are based on different conceptualizations of health. As far as future choices are concerned, we must recognize that health "per se" may not have the over-riding value we have given it (see: Ziglio, 1981, Chapters 1&3; James, 1965; Berry, 1973).

2. Priority-setting activities for the future must face the problem of making explicit value choices. This may, of course, generate political conflict and can be seen as an obstacle to the implementation of policies recommending a shift in health priorities. Strategies and tactics should be identified to address such a problem; nevertheless we must be aware that when we are making choices for the future, we are making choices about the kind of community and life we want for the future (see for example the work of Amara 1981c; Valaskakis, 1981; see also Chapter 10, Section 10.3.2).

3. In order to make "explicit" value choices, we need both to improve the technical component of priority-setting processes and to respect democratic preferences. The problem is much more complex than may appear at first sight. It is not enough simply to discuss the range of choices available. It is worth noting that:

(i) The public at large has little opportunity to get to know about the set of alternatives available and the consequences of each alternative.

(ii) Adjusting to immediate political interests and power groups, as has often been done in the past, may set us on a different course from that which the majority would really like to follow in the future if they had the choice (see: Arnold et al., 1971, chp. 1).

(iii) It is not always the case that the "majority can choose best". Public participation must therefore reach a compromise on (adaptable) planning processes and methods (see Chapter 9 and particularly Chapter 10; see also: Jackson, 1981; Ackoff, 1974; Emery et al., 1977; Trist, 1978).

4. Future choices, according to many should be focused on ability rather than on disability (Hancock, 1980; 1981; 1982a; 1982b; Milio, 1976; 1977; Robertson; 1983a; 1983c). Robertson (1983a) argues that it is something of a truism that what the national health systems, in most Western industrialized countries, provide is in fact a national "sickness" service, rather than a national "health service". The efforts of most of the NHSs are concentrated on dealing with diseases once they have appeared, rather than on the development of policies and initiatives for the prevention of disease and the promotion of positive health within the community. However, this point is characterized by many of the uncertainties and dilemmas mentioned in this Chapter (see also Chapters 8 and 9). Nevertheless, although it is not easy to reach an agreement via the political process on

what we want, at least we should begin to define technically what choices we have (see: Arnold et al., op. cit.; Morgan, 1977; Jackson, op. cit.; Kaiser, 1978; see also Chapter 10, Section 10.1.1).

5. Future choices are linked to future values. Unfortunately, in the health sector a particularly difficult dilemma faces doctors, legislators, health planners, politicians and anyone else who wishes to change priorities and re-allocate funds within the system. The issues involved may well be matters of life and death. Nowadays, cancer, cardiovascular diseases, kidney afflictions and a few others have attained a kind of "most-favoured" disease status (see: Selim, 1979). According to Rushmer (1975), the high technologies developed for these conditions are currently benefitting a relatively small proportion of people at an enormous cost to the entire society. Selim (op. cit., p. 333) notes that:

> "Re-allocating these resouces is in part a matter of robbing Peter to pay Paul; but, in this case, Peter might lose more than money - he may lose his life."

In any case, it seems to me that a deliberate shift in setting health priorities is desirable. In such a shift, "prevention" should play the most important role. If, on the one hand, it is very difficult (if not impossible) to find an acceptable solution to the above "dilemma", on the other hand, as far as the future is concerned, unless prevention is emphasized the dilemma will certainly grow.

1.4 Possible Scenarios for Future Health Priority Setting

Possible scenarios for the development of health policy in industrialized countries are widely ranging between two poles, again being symbolized by the myths of Hygieia and Asclepius. Generally speaking, if the high cost of the medical care system, the continuing presence of hospital morbidity, and the incidence of chronic disease and degenerative conditions are examined from an Asclepian perspective, the future scenario is seen in terms of more money spent on research and development into technical and medical break throughs, and an improvement in the efficiency and accessibility of medical resources. This scenario could indeed be generated by a simple extrapolation of the trends in modern medicine in the last decades.

If the problems are framed by the characteristics of the Hygieian perspective, solutions are seen in terms of the prevention of disease through social and environmental changes, and an increase in the variety of types of health-related resources (see: Jackson, 1981, chp. 2). It has been noted that the first scenario is based on disease-centred and mechanistic assumptions; the second one is health-centred, system-oriented and flexible (Jackson, op. cit.; Hancock, 1982b).

Jackson (1981) argues that the second scenario can be considered as the "emerging paradigm" in health policy. This is because the "Flexner biomedical model" [8] ("departing paradigm") which is disease-centred and mechanistic, does not provide the appropriate framework for

dealing with the current increased incidence in chronic and degenerative diseases. Although Jackson's argument is very stimulating, it is somehow paradoxical to label as "emerging paradigms" and "departing paradigms" the assumptions of scenarios which have been debated for over 2000 years. Moreover, Jackson (1981) overlooks the fact that many other possibilities lie between the poles of these two scenarios. The two scenarios outlined above are not necessarily mutually exclusive, and probably scenarios with "mixed" or "balanced" Hygieian and Asclepian characteristics would be highly desirable.

Many works on the future of medicine and health policy have been written over the years (Powles, 1973; 1977; Fuchs, 1974; Carlson, 1975; Illich, 1975; 1977; Lalonde, 1974; Hancock, 1980; 1982a; 1982b; see also: Milio, 1976; 1977; 1981a; 1983; USHP, 1978; 1981; Mahler, 1981) [9]. As the works of Powles, Fuchs, Carlson, Illich, and Lalonde have been widely discussed, I shall briefly outline the main concepts which have contributed to the formulation of the various scenarios mentioned above.

In the '70s, in fact, there has been a radical reappraisal of the concept of health and its determinants. Among the more significant developments was the rediscovery of the importance, in affecting health, of <u>environment</u> (see: Hoke, 1974; Cappon, 1974; Powles, 1973; 1977, Milio, 1976; 1977; 1980; USPH, 1981; Draper et al., 1977) and <u>lifestyle</u> (Fuchs, op. cit.; Lalonde, op. cit.). In Western industrialized countries, this reappraisal was perhaps best

expressed in a Canadian working document, published by the National Ministry of Health and Welfare, entitled: "A New Perspective on the Health of Canadians" (Lalonde, 1974). The main message of this document was that further improvements in health will depend on improving the quality of the environment and (particularly) in changing "unhealthy" lifestyle, so as to reduce self-imposed risks (see: Chapter 4, Section 4.2). This Canadian document was followed by publications in a similar vein in Great Britain (DHHS, 1976; SHHD, 1976) and in the U.S. (U.S. Dept. of Health, Education and Welfare, 1979).

The '70s also witnessed a growing opposition to the medical establishment and to the medicalization of society (Illich, 1975; 1977; see also Carlson, 1975). Another reaction to modern scientific medicine has been the emergence of the holistic movement and its various sub-movements (see: Gillespie, 1979; Solomon et. al., 1980; Tsalikis, 1980; Berliner et al., 1980). In line with these trends, there has also been an increase in the role of the paramedical professions (see: McGlew and Robertson, 1981 Salber et al., 1976; RNAO, 1983).

In summarizing these developments Hancock (1980, p. 353) argues that:

> "Environmental sensitivity, recognition of the need for social change on the one hand and the personal responsibility for health on the other (..) will mean an increasingly important role for public health, which has languished for some decades. We are perhaps witnessing the birth of a second public health revolution, one that will be more global in its outlook and yet more based in local community action than the first. Thus have

> the seeds been sown in the '70s for a very different approach to health and health care through the '80s."

Although I would support a change like that proposed by Hancock, I think that Hancock, as well as many scientists working on generating future scenarios, confuses "desirability" and "feasibility". The analysis of the Canadian and Norwegian approaches to health promotion policy contained in this thesis attempts to demonstrate this important difference. Moreover, when discussing the future we must always distinguish between what Henchey (1978) calls "possible future" (what may be); "preferable future" (what should be); "plausible future" (what could be); and "probable future" (what will likely be) (see: Chapter 10, Section 10.3.2; see also: Robertson, 1978; Amara, 1977; 1981a; 1981b; 1981c).

1.5 Conclusion

As a result of the exploration of issues regarding the change in disease patterns in industrialized societies and the limitations of modern medicine, it has been emphasized that as far as future health improvements are concerned, we cannot rely totally on the traditional mechanistic view of health and medical interventions. In different ways both the Lalonde Report and the Norwegian Reports No 32 and No 11 on the NNFP attempt to cope with the new burden of disease and health hazards. The Lalonde Report, for instance, stresses the point that for environmental and behavioural threats to health

> "(..) the organized health care system can do

> little more then serve as a catchment net for the victims" (Lalonde, op. cit., p. 4).

Other issues such as the lack of agreement on the ethics of resource allocation, uncertainty about resources, and so forth, may either be obstacles or stimuli for bringing about drastic changes in the order of health priorities.

NOTES

[1] Industrialization is an extremely complex phenomenon; this term is used here in its general meaning. Here, I shall refer to its development in Western countries.

[2] It should be stressed that these are not hunter-gather societies (for an outline of the health situation in these latter see: Powles (1973)).

[3] Pandemic means a widely epidemic condition affecting a whole country, several countriel or even the whole world.

[4] The term "man-made" is rather ambiguous. Omran (1979) would have probably been more clear if he had used the term "lifestyle-related" diseases, which is commonly used in the literature.

[5] This relationship is much more complex than Fuchs (1974) implies. He compares Nevada, which has a population with a high rate of geographic mobility, family instability and heavy smoking and drinking habits, and Utah, which has low geographic mobility, little instability and no, or very little, drinking or smoking. The death rate in Utah is half that of Nevada, and Fuchs concludes that this is due to differences in lifestyle. I do not deny the existence of this connection, but the indicators used by Fuchs are too crude, at best showing a statistical association, but not a casual link (see also: Berliner, 1977). Further studies are needed in this area.

[6] Modern medicine can reasonably be said to have begun with Rudolf's "Cellular Pathology", published in 1858 (see: Miller, 1973). This reflected a model of disease through which cellular disturbances were presumed to be the basis of all diseases. The discoveries of Koch and Pasteur in the second half of the 19th century provided the basis of the "Germ Theory" (Kendall, 1974; Youngson, 1977, chapters 4 and 5). At the turn of the last century, the discovery of hormones and vitamins suggested that the physiology laboratories of universities would take the lead in new developments in medicine and therapeutics.

Paul Ehrlich's introduction of the "magic bullet" (salvorsan) for the treatment of syphilis in 1910, is generally regarded as milestone in the scientific revolution of medical treatment (Miller, op. cit; Horrobin, 1978). Ehrlich is considered to be the father of chemotherapy and the first to use scientific biochemistry to devise methods of killing the causal agents of disease without deleterious effects on the patient's tissues. The next step came with

the development of sulphonamide drugs in the 1930's. These drugs had a wide range of effectiveness and removed the fear of bacterial sepsis from childbirth, surgical operations, etc..

Modern medicine and the availability of medical interventions, ranging from cure, repair, chemical replacement, pharmacological interventions and organ replacement and reconstructions, was also made possible by the development of modern anaesthesia as an essential technique of intensive care (Miller, op. cit.; see also: Mustard, 1977; MacDermot, 1974; Engel, 1960).

[7] It must be acknowledged, however, that there has been a reduction, after the mid 70's, in deaths from heart diseases and certain forms of cancer, which might be due to improvements in clinical medicine (see, for instance, recent vital statistics for Canada, U.S.A., Norway). Nevertheless, it is still essential to reassess: (a) the residual problems in such areas which cannot in many instances be dealt with through clinical means; and (b) the cost effectiveness argument, given the expense of modern treatments and the rate of growth in the price of medical care in all modern societies.

[8] Jackson (1981, chapter 3) points out that in 1910, Abraham Flexner prepared a report on medical education in the U.S. and Canada which recommended that medicine be soundly based in the sciences and that medical schools be accredited and affiliated with universities. According to Jackson(op. cit.) Flexner's recommendations contributed greatly towards improving the quality of medical education and care and it was at that point that the biomedical model as the basis for Western-style medicine became firmly established (see also: MacDermot, 1974; Engel, 1960).

[9] For a criticism of these scenarios see the works of Tsalikis (1980); Berliner(1977) and Horrobin (1978).

CHAPTER 2.: REVIEW OF THE LINKS BETWEEN NUTRITION AND HEALTH

This chapter is divided into two sections. Section 2.1, concentrates on the links between nutrition and health. Section 2.2 identifies the most important factors influencing food patterns. The aim is to demonstrate that an understanding of demographic, socio-cultural, economic, psychological and educational factors is a pre-requisite to any attempt to change unhealthy eating habits.

2.1 Nutrition as a Contributor to Ill-Health

There is no doubt that nutrition plays an important part in affecting the quality of health: the duration of disease, the extent of disability, the degree of recovery and the chance of recurrence are all influenced by nutritional status. It is common sense that good nutrition, at any stage of life, contributes to the promotion of health, while poor nutrition contributes to illness. However, as this section seeks to demonstrate, the epidemiological evidence linking nutrition and certain health problems is not always clearly quantifiable.[1] The resulting uncertainty is therefore likely to influence the type of health policy to be implemented.

At any rate, in spite of the fact that the relationship between diet and health is not yet entirely understood, countries such as Canada and Norway already possess sufficient knowledge to promote health policies which aim to

improve eating habits. Such changes in eating patterns are desirable, if the incidence of many of the major diseases affecting Canada and Norway,and most other developed countries, (see: Blythe, 1976, Feb.; Lalonde, 1974) are to be prevented.

The fact that, in industrialized countries, we have enough food to provide the basis for an adequate diet has not proved to be a guarantee that present diets are entirely safe from the health angle. In Canada, for example, nutritional imbalances, the result of poor food habits, have been identified as factors contributing to some of the major causes of illness and death, such as diabetes and cardiovascular disease. Dietary habits, such as excessive calorie intake, eating refined sugar and drinking too much, contribute to the development of obesity and dental caries as well as certain forms of digestive and metabolic diseases (see: Lalonde, op. cit.). The same links can be made for Norway and other Western countries, where many health problems are related to overconsumption and unbalanced diet (see: RNMA, 1975-76; RNMSA, 1981-82; Beaton, 1976; Davidson et al., 1975; CAS Report No 5, 1979; Robbins, 1978; DHSS, 1979).

Nutrition is considered a contributing factor to ill-health in the following areas:

** energy imbalance;

** mental and physical development;

** cardiovascular disease;

** dental caries;

** alcohol-related cirrhosis of the liver;

** metabolic diseases;

** lack of resistance to infectious diseases; and

** cancer.

From a review of the literature , it emerges that there is a fair amount of consensus on the impact of nutrition on some of these areas (which will be discussed in turn below), whilst its effect on others is hotly disputed.

2.1.1 Energy Imbalance

Data from the Nutrition Canada Survey (DNH&W, 1975(a-e incl.) suggest that, for many Canadians, an imbalance exists between energy intake and energy expenditure. Over 50 per cent of the adults surveyed were reported to be overweight. In Norway, the Report No 32 (RNMA, 1975-76, pp. 19-20) draws attention to the fact that obesity is affecting many middle-aged people and it seems also to be a growing problem among children. From a health point of view, obesity is usually accompanied by increased illness and even death as a result of high blood pressure, cardiovascular disease, diebetes and gallstones (see also: DNH&W, 1976c; DHSS-MRG Group, 1976; Fallows and Wheelock, 1982; Truswell, 1977).

According to Van Itallie (1979), obesity is associated with a range of disabilities belonging to two major groupings:

(i) Physical health problems, which include: reduced longevity, physical handicaps; and physiological problems such as impaired glucose tolerance, hypertension and hyperlipidaemia; and

(ii) Psychological problems, which include: inability to cope with physical environments; social and economic discrimination; impaired self-image; and deviation from prevailing aesthetic view of attractive appearance.

Epidemiological studies also indicate the relationship between weight and high blood pressure (Tobian, 1978). Blood pressure decreases if weight is reduced. It has been demonstrated, in the United States, that control of obesity could reduce high blood pressure. Some researchers have suggested that this fall in blood pressure might result from decreased salt intake, but this is not yet fully accepted (see: DNH&W, Bureau of Nut. Sci., 1979, p. 8).

Although we know that obesity and being overweight are the result of eating more calories than needed (except in the case of rare endocrine disorders), the real underlying causes of excessive appetite are not fully known and appear to be very complex (Majer, 1953; Abram, 1976). In obesity and being overweight many factors play a very important role. These factors may be of hereditary, psychological and environmental origin (see: Abrams, 1976). However, a complete understanding of the relative importance of these factors has not yet been reached (see also Fairbanks, 1978).

There has also been increased concern, both in Canada and in Norway, as well as in other developed countries, with the problem of "fat babies" (see: DNH&W, op. cit.; RNMA, op. cit.). The Canadian Report on Nutrition and Health, published by the Bureau of Nutritional Sciences in 1979, states that obesity during the first year of life may result from a number of factors such as early introduction of solid

foods, overzealous bottle feeding and premature weaning (see also Taitz, 1971; Helsing, 1978). However, not all researchers would endorse these associations (see: De Swiet et al., 1977; Dubois and Beaton, 1977).

It has also been demonstrated that the elderly, particularly women, risk becoming obese even if they were previously of normal weight. This can be explained by the fact that although the amount of energy needed to sustain life and perform daily functions appears to decrease with age, previous eating habits tend to persist (see: Wineck, 1976; Howell and Loeb, 1969). Obesity due to compulsive eating may also be an explanation (see: Abrams, 1976; Hamburger, 1957).

In developed nations problems arising from over-eating occur more frequently than problems associated with insufficient food intake in relation to the energy expenditure. Inadequate food intake may have negative effects on health status in forms which are different from the extreme situations of obesity or undernutrition (Belloc, 1973; DNH&W, op. cit., pp. 8-10).

Fallows and Wheelock (1982, p. 222) point out that:

> "The consumption of more food than is necessary for the satisfaction of human nutritional needs represents a waste of resources both for the individual families and for the national economies of many western states. These wasted resources, which may be measured in financial terms (..) or by physical quantity (hectares of agricultural land; joules of energy; man-hours of labour; etc.) are expended but no nutritional benefit is gained and in many cases health status is undermined".

However, even though an energy imbalance may affect people's health status, to recommend a precise diet or to formulate dietary standards in the form of a health promotion policy is, as we shall see later, a very risky and often useless procedure.

2.1.2 Mental and Physical Development

It is beyond question that nutrition is an important aspect of mental and physical development. A vast literature has accumulated on the effects of malnutrition on physical and mental development (see: DNH&W, 1979, Section II.1.2). The importance of nutrition for the improvement of mental and physical health has been recently considered by WHO and Unicef in a new emphasis on the benefical aspects of breastfeeding (Unicef 1981, SFS: 81-03; 81-04; 81-05; 81-07; WHO, 1980).

However, nutrition is so closely linked with other factors (e.g. social, psychological, environmental and emotional) influencing individual development, that it would be misleading to view it in isolation (see: Helsing, 1978). As has been noted, regarding the relationship between nutrition and mental and physical development in early life,

> "(..) it is clear that, in the complex human context, this is an environmental situation in which many factors other than nutrition are at work. The importance of focussing on the "whole" family, rather than exclusively on the diet of the child, cannot be ignored (DNH&W Canada, Bureau of Nut. Sci., 1979, p. 11).

Such considerations are important to bear in mind both when formulating nutrition policy and when considering the "nature" of health itself.

2.1.3 Cardiovascular Diseases

The Norwegian document (RNMA, Report No 32, 1975-76) presenting the NNFP states that over half of all deaths in Norway now occur as a result of cardiovascular diseases. The death rate from the individual groups of diseases within the cardiovascular disease complex varies according to age and sex. Ischaemic heart disease, which is the largest group, has showed the greater increase, being most pronounced in men. In Norway (as well as in other industrialized countries) the largest increase has been among men under 70 years of age, and especially in the age group from 40 to 50 years. In the period 1966-67 the death rate from heart attacks and coronary disease in the 40-49 age group increased 280 per cent for men and 190 per cent for women as compared with the period 1951-55 (RNMA, op. cit., pp. 18-19).

A Norwegian study of coronary heart disease [CHD] proposed a change in eating habits and abandoning smoking as the best preventive measures (Hjermann et al., 1981; Leren et al., 1975; Hjermann, 1980). Such measures reduced the incidence of the first event of myocardial infarction and sudden death in healthy middle-aged men at a high risk of CHD (Hjermann et al., 1981; Hjermann, 1980).

In Canada the publication of the Report on Diet and Cardiovascular Diseases, in 1976, had a major impact on setting nutritional guidelines for Canadians (see: Chapter 6, Sec. 6.1.2). The results of this report showed that cardiovascular diseases accounted for about 50 per cent of deaths in 1974. As in Norway, ischaemic heart disease was responsible for most of these deaths and men over 40 years of age were most afflicted. In Canada, the annual cost in 1975 of illness attributed to cardiovascular disease (including hypertensive cardiovascular disease) is estimated at 1.23 billion dollars. This figure includes loss of income due to morbidity and mortality (Canadian Heart Foundation, 1975).

There is evidence (although some sources would dispute it; see: Morgan, 1977, pp. 62-63; Bartley, 1983), that diets rich in saturated fats with or without cholesterol induce vascular pathology, but when saturated fats have been replaced by polyunsaturated fats these effects are minimal or may be reversed (see: Robbins, 1978, pp. 50-53; DNH&W, 1976c; Keys, 1975; Norwegian NNC, 1975-76; Norum, 1978a; 1978b; 1980).

There is also evidence, although the cause of CHD is multifactorial, of a positive correlation between high plasma cholesterol levels and risk of CHD (see: Leren, 1966; Karvonen, 1980). Evidence suggests also that plasma cholesterol in man is related to dietary cholesterol and saturated fats (see: Robbins, 1978; Norum, 1980; see also Keys et al., 1957).

However the mechanism by which polyunsaturated fatty acids [PUFA] lower plasma cholesterol is still debated (see: DNH&W, 1976c, Appendix D:D1 and E; see in particular the work of Hegsted et al., 1975; and Vergroesen and Gotenbos, 1975). The interdependent effects of dietary cholesterol and fatty acids on plasma cholesterol level are also very complex.

> "These relationships are such as to make it appear worthwhile to reduce dietary cholesterol and saturated fatty acid intake simultaneously and increase the intake of PUFA, primarily linoleic acid." (DNH&W, 1976c, pp. 41-42)

The death rate from CHD in middle age, in developed countries has shown a common increasing trend (at least until recently). Keys (op. cit.) provides epidemiological evidence of the existence of a high correlation (0.84) between dietary saturated fats and CHD. This, among other epidemiological considerations, strengthens the belief that the main cause of atherosclerosis and CHD is dietary rather than the result of stress or smoking, although these latter factors contribute in the later development of the disease. Sugar and purified carbohydrates have also been implicated although there is a lack of experimental support (see: Karvonen, op. cit.; Joossen et al., 1977).

In the Canadian recommendations for prevention programmes in relation to cardiovascular diseases it has been indicated that only those people genetically disposed towards hypercholestermia should severely restrict their dietary intake of cholesterol (DNH&W, 1976c). It would appear that atherosclerosis has its origins in infancy and childhood

(Fomon, 1976; DNH&W, op. cit.). However, there is not yet agreement on whether radical dietary changes should be advocated for such infants (DNH&W, Bureau of Nut. Sci., 1979).

In conclusion, there is general agreement that a reduction of saturated fat in the diet and its replacement by polyunsaturated fats is desirable (see also: Hill, 1977-78; McDonald, 1977; Metzgar, 1981), although the degree to which this should be done is at present uncertain (DNH&W, 1976c, pp. 40-43 and Appendix D). Moreover, the effects on health of long-term consumption of diets rich in PUFA are not well known. The study carried out by Ederer et al., (1971) suggests that such diets may even increase the incidence of cancer.

Nevertheless, experts in nutritional sciences recommend that dietary fat be reduced to 30-35 per cent of the calories in the diet. There is evidence that such a diet is both palatable and desirable (DNH&W, op. cit.; 1983; RNMA, 1975-76; RNMSA, 1981-82; Murray and Rae, 1979; see also DHSS, 1979).

2.1.4 Dental Caries

Dental caries and tooth loss are a widespread problem in most developed countries (see: Roder, 1973; Muster, 1977; DNH&W, 1977a; DHSS, 1979). Norway, for example, admits to being among those countries which have the highest incidence of tooth decay. These health problems are mainly related to excessive intake of soft drinks, chocolate, sweets, etc.,

with a high sugar content (RNMA, 1975-76, p. 19; see also Roder, op. cit.).

The Nutrition Canada Dental Report (DNH&W, 1977a) showed the seriousness of dental caries and tooth decay in Canada. Dental caries or tooth decay ought to be considered a serious social problem. In fact they occur repeatedly throughout life, or as long as we have our own teeth. Investment of time as well as public and private money is thus considerable when seen in the perspective of a life time.

A change in eating habits and, as has occurred recently in several countries, a systematic distribution of fluoride tablets to children, seem to be important measures for the reduction of this health problem (see: Begin, 1978; Fielding, 1978, pp. 281-282).

2.1.5 Other Diet-Related Diseases

Diet is also associeted with diseases such as metabolic diseases (diabetes, phenylketonuria, coeliac disease), alcohol-related cirrhosis of the liver, lack of resistance to infectious diseases [2] and cancer. Among these diseases the relationship between diet and cancer is the most debatable.

It is probable that dietary factors are involved in certain forms of malignant tumours in the digestive tract. The relationship between dietary patterns and the occurrence of types of malignant tumours is the object of increasing

interest and debate at present. It has been suggested that factors related to food patterns have a positive correlation with cancers of the pancreas, gallbladder, breast, ovary, prostate, etc., (see: Wynder et al., 1972; Burkitt, 1973; 1977).

Cancer of the large intestine is one of the most common neoplasms in the world. It is the second commonest cause of death from cancer in Canada, after lung cancer (see the study of Stavraky and Lindsay, 1979). There is some evidence of a bulk or fibre deficiency in the diet as part of the cause (Burkitt, 1973; Burkitt et al., 1974). Support for a relationship between diet and breast cancer has also been put forward (Burkitt, 1977; Stocks, 1970). However, it must be said that these common cancers are also very closely associated with economic development (see: Burkitt, 1977). It is therefore difficult to assess (and separate) environment and diet as risk factors. It has been estimated, for example, that from 80 per cent to 95 per cent of all malignant neoplasms occur as a result of environmental factors (Morgan, 1977). Such a statement, however, implies a broad definition of environment, to include personal habits such as smoking or eating patterns. It must be noted that, sometimes, broad definition of environment may jeopardize the identification of specific preventive measures, as the target becomes rather vague.

As far as the relationship between diet and cancer is concerned, it should be added that dietary factors may well be less important in the aetiology of some of these cancers

than others; at any rate continued research is needed to resolve the issue.

2.1.6 Conclusion

As far as health promotion is concerned, it is desirable to pursue an increasing awareness that our eating habits are significant factors in such health problems as being overweight, cardiovascular disease, dental caries, etc.. It is therefore important to recognize the role played by nutrition and other lifestyles in the health status of individuals. However, preventive measures for the promotion of health of the population have only recently been taken into consideration. It is already something that nations such as Canada and Norway consider, although with different emphasis, food and nutrition policy as an integral part of preventive public health-efforts.

In Chapter 1, I mentioned the fact that preventive measures (often proposed but seldom supported) seem better able to cope with modern health problems than the gigantic size of the present health service. However, as far as nutrition policy is concerned, we must be aware that "health" is more than a matter of nutrition, and much still remains to be learnt about the complex relationship between eating habits and health status.

In these circumstances it is impossible to devise an ideal approach for making, analysing or guiding decisions in the field of health promotion policy. It is therefore indispensable, in health promotion policy-making, to gain a

better awareness of the magnitude and sources of uncertainty involved (see Section 2.2; see also Chapter 8).

2.2 Factors Influencing Food Habits

Generally speaking, the type of food consumed varies according to age, sex and geographical location. The age and sex composition of the population of industrialized countries has changed significantly over the years. This trend has influenced the overall levels of consumption of certain types of foods. Changes in the composition of families, in social mobility, in the ethnic composition of populations and the degree of urbanization are all related to food consumption (see: DNH&W, 1977b; 1979 Section II.3.1; Dept. of Agriculture Canada, 1979; Van der Tak et al., 1980; Cohen, 1980; Rodale, 1983).

In order to change unhealthy habits we must be able to identify and control those factors which influence, or determine, them. It is not possible here to list all the relevant factors and their interactions, but, from the review of the literature, I shall indicate some broad areas which seem to influence food habits and consumption patterns, as they are relevant to health promotion. These factors may be economic, demographic, sociocultural, psychological and educational ones.

2.2.1 Economic Factors

The price of food and incomes naturally affect preferences in purchasing food (CAS Report, 1978; McKenzie, 1974; Aasness, 1979; Dept. of Agriculture Canada, 1979; 1982, Vol. 4, Nos. 2,3,4; Roberts, 1982; Central Bureau of

Statistics of Norway, 1981). From a nutritional and health perspective, it would be desirable to encourage the consumption of certain foods and to discourage that of others.

However, this would require knowledge of the sociological and psychological determinants of expenditure of the various groups and classes in the population at different levels of income and prices (see: CAS, op. cit., pp. 68-69 and 71). It has also been stressed that although the process of choice varies with income, it is not sufficient to quantify the response in terms of income and price level. To this end, an understanding of the social realities imposed and their conditions for change are also necessary (CAS, op. cit.; see also Mckenzie, op. cit.).

As expected, The Canadian Family Expenditure surveys indicate that, between 1969 and 1974, the proportion of income spent on food is related to education, occupation and family income (Statistics Canada, 1973; 1977; DNH&W, 1979). On average, Canadians spend less of their income on food than do the populations of most other Western countries. According to the Report on "Nutrition and Health in Canada", in 1976 about 18 per cent of after-tax (per capita) income was spent on food in Canada, compared to 19 per cent in Denmark, 22 per cent in U.K., and 17 per cent in the United States (DNH&W, 1979, Section II.3.2; see also Hassan et al., 1981).

In Norway, according to the Consumer Surveys of the

Central Bureau of Statistics, the percentage of expenditure on food for an average family was 39.9 per cent in 1958; 29.6 per cent in 1967; and 24.0 per cent in 1973. Expenditure on food was seen to vary according to the different households and income groups (Aasness, 1979). The proportion spent on food, in Norway, was shown to rise with an increasing number of children and with increasing age of the primary wage-earner (Aasness, op. cit.; see also RNMA, 1975-76, pp. 54-55).

Myres et al. (1979) show that in Canada as the income rose, consumption of fruit increased and consumption of bread and potatoes decreased. The same type of trend characterizes the Norwegian situation (see: Norwegian NNC, 1982, Annual Report).

By and large, consumption of foods is sensitive to price changes. It varies also according to what the consumer perceives as "essential", "cheap" and "desirable" (DNH&W, 1979). The extent to which demand reacts to a price change depends on several circumstances, including the degree of the price change and the consumer's income. So-called "demand elasticity" is often used as a unit of measurement for the different factors influencing demand. We can have several types of elasticity: "price elasticity", "income elasticity" and "cross elasticity". [3]

Some Norwegian studies of the size of demand elasticity for foods indicate that cereals, potatoes and milk are commodities which have very low demand elasticities. Pork and other meats are examples of products with somewhat

larger demand elasticities. The Norwegian calculations for fish indicate a relatively low price and income elasticity (RNMA, 1975-76, pp. 51-52; see also Aasness, op. cit.). Recent Canadian studies have found that the percentage decrease in demand for veal, lamb, turkey and frozen foods is greater than the corresponding percentage increase in price. In the case of beef, pork and cheese, it is less than the corresponding percentage price increase, while demand for powdered skimmed milk, eggs and cereals changes very little in response to price fluctuations (Hassan et al., 1977; see also Roberts, 1982; Dept. of Agriculture Canada, Food Market Commentary, 1981, Vol. 3, No 3, pp. 1-11; 1982, Vol. 4, No 2, pp. 3-11; Vol. 4, No 3, pp. 3-13; Vol. 4, No 4, pp. 3-14; 1983, Vol. 5, No 1, pp. 7-11).

The report on "Nutrition and Health in Canada" points out an important aspect relating to economic factors. It notes that rising income and more affluent lifestyle are associated with more money being spent on food eaten away from home. In 1976, Canadians spent an average of 18 per cent of their disposable income on food, 4 per cent of it on food eaten outside the home (DNH&W, 1979, p. 41 and 58). As this proportion is expected to increase in the future, it must be taken into account when nutrition policy measures are to be identified (DNH&W, op. cit., p. 41; see also Karamachandani, 1976).

Economic factors may also be related to nutrition knowledge. The survey carried out by Love and Byrne of 200 Toronto households shows that income and educational

differences are factors which influence perceptions of risks to health (Love and Byrne, 1983). However, the report on Nutrition and Health in Canada notes that:

> "although higher income families may be more aware of the importance of good nutrition their nutritional status is not necessarily better than that of lower income families. For example, although those with higher incomes might be expected to be more aware of the relationship between fat in the diet and cardiovascular disease, the Nutrition Canada Survey reported that 40 per cent of the total caloric intakes in all income groups come from fat" (DNH&W, 1979, p. 41. See also Myres et al., 1979).

2.2.2 Sociocultural Factors

These factors play an important role in influencing when and how people eat, and which kinds of foods are selected. Distinctions in food habits can be made between different cultures and we can also identify inter-class distinctions. These factors seem to shape the so-called "tastes" and "preferences" for foods which form the basis of diets (CAS Report 5, 1978 pp. 71-72). However, the study of Kemp (1978) shows that attitudes to food are not always expressed in actual purchases. This may be because of the interaction with other factors such as economic ones (e.g. size of income, price and availability of foods) and ease of preparation (see CAS, op. cit.).

The social context can also influence the choice of food and often its preparation. Within the social context, institutions such as the family, the school and the workplace are of primary importance. The family, for instance, influences the number and the size of meals eaten.

Moreover, it determines attitudes towards the nutritional properties of certain foods as well as their preparation (see: DNH&W, 1979; CAS, op. cit.; Kemp, op. cit.).

School and workplace also influence eating habits both formally and informally. In these contexts the consumption of snack foods, instead of or between meals is often very high; the quality of foods increasingly distributed by "snack-machines" gives rise to considerable concern (Lloyd, 1974). Both in Canada and in Norway nutritional guidelines, health education and the teaching of nutrition programmes have been developed (DNH&W, 1976a, Norwegian NNC, 1982, November).

Another aspect of sociocultural factors is related to the pressure to conform to peer group behaviour, particularly during adolescence. Frankle et al. (1974) point out that in the United States

> "a growing group of teenagers and youth, with diverse motivations, are adopting new eating patterns, some of which are extreme, faddish, eccentric, grossly constricted, and because these patterns are different from those of the majority of our society, they may aggravate and exacerbate the relationships between adolescents and adults in general."

In Canada the study of Krondl (1983) shows that dietary patterns of adolescents are of concern because of their effect on the health of teenagers per se as well as on their families. In this study, frequency of use of 96 foods and perceptions of 48 foods were related for 300 culturally-similar Toronto students in the age range 14 to 18 years. The results of this study are that boys select

foods high in fat, salt and sugar more frequently than do girls, who eat more vegetables. Girls are guided in their food choices by health beliefs more than boys are; their own body image strengthens this health belief. Lower socio-economic status is related to more frequent use of "treats" foods. Body image and hedonic experience with foods are the major factors influencing the food choices of adolescents.

2.2.3 Psychological Factors

As we know emotions are associated with food from infancy (see: Helsing, 1978).

> "Feeding an infant creates a repetitive cycle of nutritional and emotional gratification with the presence of the mother. This intimate association also creates a strong emotional link between the pleasure of eating and the growth of love for specific people" (DNH&W, 1979, p.46).

The memory of enjoying a particular food may be associated with emotional experiences, whilst other times selecting specific food may be mainly determined by emotional reasons (see: Jenner, 1974).

Abrams (1976), for example, stresses the psychological influence in obesity; overeating is seen as a reaction to alleviate tension, anxiety, worry, frustration or boredom. In her article, Abrams cites Hamburger who lists four categories of overeating leading to "emotional obesity". These are: (a) overeating as a response to non-specific emotional tension; (b) as a substitute gratification in very difficult life-situations; (c) as a symptom of underlying

emotional illness, especially depression and hysteria; and (d) over-eating as an addiction to food.

The CAS Report No 5 (1979, p. 69) points out that attitudes to food

> "have origins in culture and prestige values attached to food, religious taboos and faddisms, psychosensory factors, including the appearance, texture, colour, taste and smell of food".

Particularly in Western industrialized countries the "symbolic" meaning of food has been reinforced (see: Frankle et al., 1974; Jenner, op. cit.). Thus, in our society, foods may be used as a mechanism for establishing or strengthening friendships, as a reward or punishment for behaviour, as a way of providing relief from stressful events or showing social status (see: Jenner, op. cit.).

From what has been said, we must be aware that because of the symbolic and emotional meaning associated with food, an increased knowledge of nutritional concepts alone will not usually cause significant changes in diet (see: Den Hartog, 1966; Schwartz, 1975; Manoff, 1974; Winikoff, 1977).

2.2.4 Education

I use the term "education" here in order to refer to the main sources of information concerning the nutritional and health implications of foods and diets. Such information comes from many sources such as schools, health services, nutrition educators, etc.. It has been noted that nowadays, in western industrialized countries, there is an

overabundance of conflicting nutrition and health messages about foods (Brown, 1978-79; Deutsch, 1977).

> "Physicians and health professionals do not always agree on the dietary measures for the prevention of disease. And it is this disagreement that make good media copy. (..) The recipies at the bottom of a newspaper page may conflict with the health article at the top. (..) The government (of Canada) uses a low-keyed approach to promote Canada's Food Guide at a time when more money is spent on food advertising than any other consumer product" (Brown, op. cit., p. 18).

In Norway, in the attempt to make the implementation of the NNFP easier, there is a project for improving instruction on nutrition (RNMA, 1975-76; RNMSA, Report No 11, 1981-82). The Norwegian government has provided short-term funds for teachers and courses, as well as teaching materials (see the work of the National Association for Diet and Health - Langsforeningen for Kosthold og Helse, 1979; and undated materials). It has also emphasized that the teaching of nutrition must occur even when the children are small and that this teaching is gradually followed up as the children become older (RNMA, op. cit., pp. 74-76). Moreover, in 1979 Norway reorganized its National Nutrition Council [NNC] in order to have an institution able to provide specialist advice on questions of nutrition information (see Chapter 7, Sec. 7.2.2).

In Canada, great importance has been given to education as an effective strategy for changing unhealthy food habits and for spreading knowledge on nutrition. Nutrition recommendations in health promotion in Canada find support in educational aids, the media, professional education and in promotional projects, such as "Nutrition Week" (see:

Health Education, 1982, Winter, pp. 8-10; British Columbia Min. of Health, 1981a/b/c; Saskatchewan Health, 1982; Ontario Council of Health, 1975; DNH&W, 1976d; see in particular Chapter 6, Sec. 6.4.1).

However, we cannot rely wholly on these educational programmes. There is, in fact, a gap between the possession of knowledge and its application in practice (see: Allison, 1982; Labonte et al., 1981; Love and Kalnins, 1984). Den Hartog (1966), for example, affirms that in the Netherlands, although nutritional knowledge has increased with time, there is no concomitant sign of its increasing application among individuals. In a study carried out in the United States, Schwartz (1975) has found no relationship between the knowledge and practice of women who had followed home economics courses. In Canada, the Food Prices Review Board proposed, in 1975, a nutritionally sound diet which would have cost about 30 per cent less than the average family expenditure on food (Food Prices Review Board, 1975). However, according to the Report on Nutrition and Health in Canada (DNH&W, 1979), Canadians do not appear to have adopted many of the Board's recommendations. In their review of health education programmes, Gray and Blythe (1979) are also rather pessimistic about the effectiveness of health education programmes (see also Simonds, 1976).

In order to have better support from educational programmes, planners, nutritionists and educators must be more aware of the factors affecting food habits. Furthermore, until we are more aware of the gap between

existing belief or knowledge and practice, it will be difficult to design effective educational materials for modifying consumption patterns.[4]

2.2.5 Conclusion

Some factors influencing food habits have been described in this section. I have pointed out that the dominant influences on food patterns and habits stem from demographic, economic, sociocultural, psychological and educational factors. [5] The complex interaction of these factors has been so far a neglected area of research, while more research in this area is essential to the development of nutrition policy and to the identification of effective policy means.

In this section it has been stressed that in order to change eating habits and unhealthy lifestyles we must gain a better understanding of the factors which influence such habits, though this alone is not sufficient. Many other problems stand in the way of the development of a nutrition policy; these will be discussed in Chapter 8.
The potential for influencing lifestyle in the long term (the aim of the Canadian and Norwegian approaches to health promotion), lies in the capacity to cope with such uncertainties and difficulties.

NOTES

[1] The lack of knowledge about the complex relationship between nutrition and health means that the contribution of nutrition to illness and death and to health costs can only be roughly estimated. It has been suggested that:

> "(..) each year more than 13,000 hospitalizations in Canada are the result of disorders associated with nutritional deficiency such as anaemia and malnutrition." (DNH&W, 1979, p.7)

At the time of the publication of the Lalonde Report, it was claimed that in Canada the total yearly number of hospitalizations for health problems relating to nutritional factors, such as diabetes, obesity, and cardiovascular disease, amounted to almost 600,000 (Blanchet, 1976). It has been estimated that about 40 per cent of health care dollars in Canada are spent on the treatment of nutrition-related health problems (see: Sabry, 1975; 1976; 1979)

[2] It is known that the ability to resist infection increases with the improvement of one's nutritional status. "Nutritional deficiencies and infectious diseases interact to produce a cycle; infection may precipitate malnutrition and malnutrition in turn increases susceptibility to infection" (DNH&W, 1979). This combination of malnutrition and infectious diseases is the best explanation of the high rates of infant illnesses and mortality in developing countries (see: Unicef, 1981SFS 81-03/04/05/07; 1982-83; 1983).

[3] "Price elasticity" expresses the percentage of change in demand for a product when the price of the product changes by 1 per cent. "Income elasticity" expresses the percentage of change in the demand for a product when income changes by 1 per cent. "Cross elasticity" is expressed as the percentage increase or decrease in the consumption of a product when the price of another product changes by 1 per cent.

[4] We must always bear in mind that nutrition, or health eduction, is effective only when imparted knowledge is transmitted into behaviour. It has been noted that:

> "(..) formal educational material constitutes only a small proportion of the consumer's total information on food and nutrition. Other sources of information are the media, in the form of either occasional features or advertisements by the food industry." (CAS, Report 1978, p.72)

It is well known that very few such advertisements offer any nutritional knowledge, and that the intention is rather that of encouraging greater consumption of the products advertised (see: Williamson; 1978; Labonte et al., 1981; Alison, 1982).

[5] It should be added that the degree of possible choices in food selection, and advice on nutritional aspects of diets, is also strongly influenced by the characteristics of the given food System.

PART II: METHODOLOGY

Chapter 3 is devoted to the methodology used in the analysis of nutrition policy as health promotion strategy in Canada and Norway. The basic set of methodological instruments comprised:

(a) analysis of documents;
(b) open-ended interviews with experts in the field; and
(c) the Delphi technique.

As the Canadian and Norwegian approaches are radically different, the methodology used in each case was not uniform. Thus, the Canadian analysis is based exclusively on the first two techniques; whereas all three come into play in the Norwegian analysis, the Delphi exercise being set in motion in response to the findings of the first two instruments.

As health promotion is a relative new-comer to health policy in both Canada and Norway, attempts to cope with uncertainty have so far been somewhat tentative and sporadic, and in some cases policy-makers have not even been aware of the fact that they are faced with uncertainty. The role of the methodology used in this research, threrefore, was to pinpoint policy areas affected by uncertainty, examining its various sources (political, ethical, economic, technical, etc.) and discussing whether, and by what means, direct action had been taken to minimize its effects.

CHAPTER 3.: METHODOLOGY USED IN THE ANALYSIS OF NUTRITION AND FOOD POLICY AS HEALTH PROMOTION STRATEGY IN CANADA AND NORWAY

Introduction - From what has been said in Chapter 2 (see also Chapter 8) in the analysis of health promotion policy there is a need for a methodology capable of exploring and assessing the various components of uncertainty in this policy area. Theoretically speaking, we need a methodology capable of identifying the crucial issues related to a particular policy. Furthermore, such a methodology should provide the means for assessing the levels of "desirability" and "feasibility" associated with the potential resolution of policy issues. Identification of the various sources of uncertainty is therefore of vital importance.[1]

The methodology chosen in this research aimed towards these goals; but the emphasis was more on identifying and explaning sources of uncertainty than on measuring either the total amount of uncertainty or that contributed by its components. The methodology tools used in the analysis of Canada's and Norway's approaches to health promotion policy are: (a) analysis of documents; (b) open-ended interviews; and (c) Delphy technique.

In this Chapter, I shall discuss the use of these three techniques in turn. As the first two techniques are commonly used in policy analysis, I shall provide a fuller account of the use made of the Delphi method (which is still rather new as a policy analysis instrument).

3.1 Analysis of Documents

The analysis of documents was not restricted to works on the formulation and subsequent development of nutrition policy in Canada and in Norway. It also included a series of documents leading to a clearer understanding of why health policy became an issue on the political agenda of the mid-70's; and of the condition influencing the shape of health promotion policy. I shall consider the procedure for analysis of documents followed in the Canadian and Norwegian fieldwork in turn.

In Canada, where federal and provincial jurisdictions devide health policy, the analysis of documents was crucial to an understanding of events leading up to the publication of the Lalonde Report in 1974, and goes some of the way towards accounting for the Report's subsequent impact on health promotion policy, both in Canada and abroad.

Much more complex was the task of finding a strategy for explaining why nutrition and food became a national issue, and why the Canadian attempt to link nutrition to food policy in the late 70's failed. A combination of the gathering of relevant documents and a series of interviews with academics, policy-makers and senior civil servants, at both federal and provincial levels, made it possible to accurately trace policy-related events (see: Chapter 6, Sections 6.2 and 6.3). The actual gathering of documents for this "trace-back" procedure proved to be a very challanging one. In Canada, there is the tendency to

release only a limited number of copies of documents. In many instances, therefore, it was difficult to gain access to relevant texts, particularly those related to the attempt to develop a "Canada Food Strategy" proposed in the latter part of the 70's (see Chapter 6, Sec. 6.2).

It emerged that the rise of "nutrition" and "food" as policy issues in the 70's and early 80's was influenced by a growing concern with the incidence of diseases where diet was considered to be one of the causal factors, in addition to a number of economic and political circumstances. The following documents were major sources of information:

(i) the 1972-73 National Nutrition Survey reporting data for the country as a whole, as well as for specific provinces (DNH&W, 1975);

(ii) the Report of the Committee on Diet and Cardiovascular Disease (DNH&W, 1976);

(iii) the Lalonde Report (Lalonde, 1974);

(iv) The publication of Canada's Food Guide and its revisions during the late 70's; and

(v) the Report on Recommended Nutrition Intakes for Canadians (DNW&W, 1983).

Texts were examined from a policy perspective, i.e. their effectiveness in making nutrition a political issue and their impact on policy development (see: Chapter 4, Sec. 4.2; Chapter 6, Sec. 6.1).

An attempt (the first and only one, to the best of my knowledge) was made to trace back documents on events related to the 1977-78 proposal for a Canada's Food Strategy (see: Chapter 6, Sec. 6.2). This was a time-consuming aspect of my fieldwork in Canada, involving extensive use of

the library of the Federal Dept. of Agriculture in the search for documents (at times elusive) to reconstruct events.

The analysis of documents relating to the Norwegian NNFP was facilitated by the fact that the area of nutrition and food is much less intricate then in Canada. The major documents on the formulation of th NNFP, published by the Norwegian Ministry of Agriculture, and on the follow up of the NNFP, published by the Ministry of Social Affairs, were available in English. Documents on the overall development of Norwegian health policy (such as "Helseplan for 1980-Aara), and Reports by the Norwegian National Nutrition Council [NNC] had to be translated into English.

The search for the relevant documents in Norway was a straightful task, aided above all by the fact that it is a small and well organized country, making it much easier than in Canada to find policy-makers, civil servants and academic with the "overall picture" of NNFP's events and related documents.

3.2 Open-ended Interviews

A series of open-ended interviews with policy-maker, academic and senior civil servants in Norway was conducted to identifiy policy-issues for analysis in the first Delphi questionnaire (see: Section 3.3; see also Appendix B). It was easy to discover individuals who had played a key role in the development and evaluation of the NNFP, thanks to the exsistence of an organizational framework covering all aspects of the NNFP (see: Chapter 7, Sec. 7.2.2).

Before starting the Norwegian fieldwork, the Ministries of Agriculture, Social Affairs (including the Health Directorate), Consumer and Government Administration, and organizations such as the National Institute of Public Health, the NNC and the National Association for Nutrition and Health were contacted. By arranging interviews in advance, fieldwork was completed fairly swiftly. A questionnaire, composed of a list of policy-issues and requests for information on the development of the NNFP (compiled on the basis of Report No. 32 to the Storting (RNMA, 1975-76) and the works of Ringen (1977a; 1977b; 1979) and Blythe (1978a; 1978b; 1979) on the early stages of the NNFP's formulation and implementation), was sent to all experts who were later to be interviewed (see: Appendix B). Personal interviews served also to encourage experts to participate in the Delphi exercise, and assure them that it would not require the use of complicated techniques to assess the policy issue in question (see: Section 3.5.1).

The major difference between the Norwegian and Canadian interviews is that in the latter case they did not lead on to a Delphi exercise (see: Section 3.5). After some preliminary research in Canada, and the carrying out of some informal interviews (mainly with academics of Ontario's universities), a list of policy questions was drawn up (see Appendix A). It formed the basis for interviews to be carried out with policy-makers and senior civil servants at both federal and provincial levels as well as with other academics. An initial list of experts and federal and provincial departments to be contacted was made with the help of academics at the the Departments of Health Administration, Behavioural Sciences and Nutritional Sciences of the University of Toronto (see: Acknowledgements).

Policy-makers and top civil servants were mainly contacted from the research base in Toronto, and the majority of those interviewed received the guide for the interview well before the interview actually took place. My research base (at the Dept. of Health Administration of the University of Toronto) proved to be an ideal choice. It allowed me to be in what is probably one of the most highly respected academic environment in Canada; moreover, as the Ontario provincial government is also located in Toronto, it offered access to provincial documents as well as provincially-based policy-makers and civil servants. Ottawa, the centre of the federal government, was also within easy reach.

It became clear, however, that no single expert could provide an overall picture of the highly complex and fragmented Canadian nutrition and food-related policies (see also Sections 3.4 and 3.5.1). To overcome this difficulty, a sort of "snowball" approach was adopted, whereby each individual interviewed was asked to suggest two new "experts" with whom an interview might be profitable. The main drawback to this snowball technique is that people tend to recommend others who share the same views, thus the ultimate interviewing sample does not reflect the full range of perspectives on, and assessement of, the various policy issues. Respondents were therefore asked to name two experts, one of whom had to hold different opinions from their own.

A total of five months was spent (in Canada) researching in libraries and conducting interviews (over fifty in all). Fieldwork was also carried out in Ottawa visiting federal departments and interviewing policy-makers and top civil servants, particularly in the departments of National Health and Welfare, Agriculture and Consumer and Corparate Affairs (this latter is located in Hull, Quebec).

Having completed fieldwork at federal level, I decided to carry out similar research in the two most populated English speaking provinces (i.e. Ontario and British Columbia) and Quebec (collection of relevant document only). Although my research was primarily concerned with a macro analysis (see the thesis's Foreword), many experts suggested that a visit to these provinces would allow me to better understand the

fragmented nature of the Canadian policy-making in the area of nutrition (see: Chapter 6), it would also confirm the provincial use of health education as the major policy-means in the structure of health promotion in Canada (see: Chapter 6, Sections 6.4; 6.5; 6.6).

The Canadian fieldwork yielded a sizeable collection of policy documents and involved more than 60 hours of taped interviews. It was not feasible to incorporate all the available material in the thesis. For the sake of smooth reading, therefore, Chapters 4 and 6 reduce quotations to a minimum. All the original materials, whether taped interviews or documents, refered to in Chapter 6 are available upon request.

3.3 The Delphi Method as a Tool for Policy Analysis

In this section I shall justify the use of the Delphi method as a major methodological tool used in the analysis of the NNFP.

Having reviewed the studies on the link between lifestyle and health status (see: Chapter 2), I was led to conclude that there is a limited understanding of available policy measures due to:

a) lack of codified and agreed-upon scientific or technical models;

b) lack of experimental evidence;

c) lack of knowledge, or practical exerimentation, on the interaction of policies related to food, health and also farming and food production in general;

d) difficulty in guaranteeing the fact that any given measure must be carefully evaluated not only as to the success of its impact, but also to ensure that it is not having any unnecessary or undesirable effect such as inefficent use of resources, loss of freedom or creation of (new) health hazards;

e) lack of knowledge about determining the nutrient needs for "normal" health in the individual;

f) difficulty in understanding, or controlling, factors influencing lifestyle (demographic, economic, sociocultural, etc.);

g) lack of agreement when considering factors influencing the health status of the individual (age, sex, body size, and so forth); and

h) lack of agreement on the notion of "health".

As we can see, we are in a situation where there is room for "judgemental" decision-making (see: Delbecq et al., op. cit; Eaton, 1980; Michael 1983). It has already been demonstrated that the central element of this situation is the lack of agreement, or incomplete state of knowledge, concerning either the nature of the problem or the

components which must be included for its successful solution (see: Chapters 2; 8 & 10; see also: Eaton, op. cit.; Michael, op. cit.; Rippey, 1980; Helmer, 1980). Just such a situation of uncertainty faces policy-makers in Norway and in Canada in the formulation and implementation of health promotion strategy. The Delphi method seems to fit well in such a context.[2]

3.3.1 The Rationale of the Delphi Method

In this section I shall attempt to provide some brief methodological notes on the use of the Delphi technique.[3] The following four notes give an overall idea of the rationale of this technique.

a) The Delphi technique is essentially a series of questionnaires. It does not require face-to-face contact and may be particularly useful for involving experts, administrators, users, etc., in the decision-making process. In my research I have emphasized the use of experts (see Sections 3.5.1; 3.6.2).

b) Generally speaking, the first questionnaire [Q1] asks individuals to respond to a set of broad questions. In the case of policy analysis, as in my case, the respondent may be asked to judge, comment on and explore a series of policy issues. The second questionnaire [Q2] is built upon answers to the first one, and is the basis for the third one [Q3]. The process stops when a degree of consensus has been reached or when a sufficient information-exchange has been

obtained (see Fig. 3.A). Fig. 3.B gives an idea of the questions asked and of the "distillation process" used to reduce the overlapping among policy-issues (see also Appendix B).

c) Essential requirements for completing a successful Delphi exercise are:

(i) sufficient time;
(ii) participant skill in written communication;
(iii) high participant motivation;
(iv) research skill in the preparation of the first questionnaire and in building (upon previous responses) the subsequent questionnaires.

d) In conclusion, the Delphi technique constitutes a systematic solicitation, collation and distillation of judgements on a particular topic, through a set of carefully-designed sequential questionnaires, interspersed with information summaries and feedback of opinions derived from earlier responses (see: Delbecq et al., op. cit.; Linstone and Turoff, 1975; Dalkey, 1967; Turoff, 1975b).

Fig. 3.A - The Delphi Process

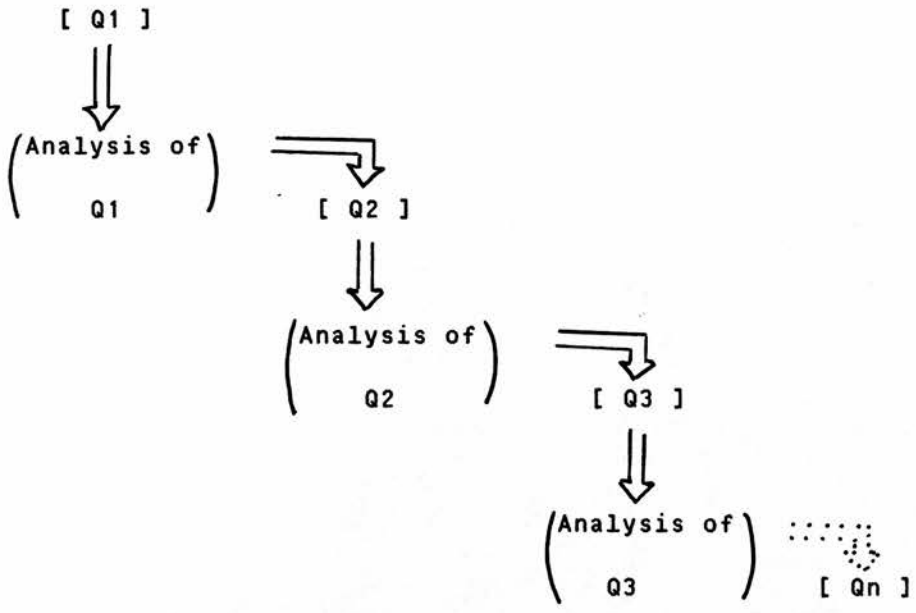


Fig. 3.B - Example of the "Distillation Process" - (Analysis of the first Delphi Questionnaire and Subsequent Reformulation of Policy Issues Nos. 1 & 3 in the Final Delphi Questionnaire)

Policy-issue No. 1:

"Have more 'top-level' administrators on the Interministerial Coordinating Committee [ICC] on Nutrition, so as to improve the efficiency of the decision-making process".

RANKINGS: SCORE

Summary of Comments:

The majority of the panel ranked this issue as a desirable and feasible one. Practical suggestions were:

1) To encourage Committee members to initiate work on nutrition within their own departments.
2) To obtain more stability in the meetings (i.e. the same persons every time).
3) To stimulate and challenge ICC members to take a more active part in presenting problems and alternative ways of approaching them.

****

Policy-issue No. 3:

"Encourage certain ministries to play a greater role in the implementation of the policy (NNFP)".

RANKINGS: SCORE

Summary of Comments

Participants felt that the resolution of this policy-issue was highly desirable. However, its feasibility was not so straight-forward (about one third of the panel rated it as either 'Possibly Infeasible' or had problems in ranking their assessement).
In the opinion of many participants, this issue overlaps with policy-issue No 1, and they should therefore be incorporated into only one policy-issue in the next questionnaire.

****
****

Fig. 3.B (cont.)

Policy-issue No. 3 (Final Delphi Questionnaire):

"Encourage certain ministries to play a greater role in the implementation of the policy".

.....

To resolve this issue the following suggestions have been distilled from the comments made in the previous Delphi questionnaire.

a) Have more 'top-level' administrators on the ICC, and ensure the stability of the meetings (i.e. the same person each time).

b) Stimulate and challange ICC members to take a more active part in nutrition-related questions within their own departments.

c) Each ministry's role would also have to be clearly specified and discussed as regards the NNFP's goals.

[Please give your personal opinion on the real, or potential, obstacles posed by certain ministries which may see their interests at odds with the goals of the NNFP].

ASSESSMENT OF POLICY-ISSUE No 3.

.....
..
..
..
.....

3.3.2 The Use of the Delphi Exercise in the Analysis of the NNFP

The Delphi exercise aimed to assess the relevance of specific policy issues in the development of the NNFP (a complete account of the Delphi analysis of the NNFP is given in Appendix B). It also provided information to explore sources of uncertainty concerning the desirability and feasibility of resolving such policy-issues.

The exercise produced invaluable expert assessments on policy issues related to the NNFP, though these have only been used when their content has been born out by existing documents and/or other empirical data. The purpose of the Delphi exercise was to extract further information from experts, shedding new light on exsisting information and indicating policy areas where an analysis of the uncertainties affecting the NNFP would be useful.

3.4 The Method Used

There have been many interesting and useful modifications to the Delphi procedure, including various ways of setting the Delphi process in motion. The Delphi method I have used starts directly with what has been described, in the previous section, as Q2.

In order to start with Q2, I used the check list illustrated in Fig. 3.C, from the very beginning of my fieldwork in Norway and in Canada. It served also as a grid for organizing and analysing documents, studies, and other kinds of information. On the basis of this check list open-ended interviews were conducted in Norway and in Canada (see Section 3.2; see also Appendices A & B). This procedure served as a substitution of what in section 3.3.1 has been identified as [Q1]. Thus, for both Canada and Norway a "guide" for exploring policy-issues related to nutrition and food policy was used (see appendices A & B).

70 per cent of the experts contacted at this stage, both in Canada and Norway, received the guide for exploring policy-issues well before the interview (see Section 3.2). The guide covered a large range of topics and each respondent was asked to pick out only those issues where he/she felt his/her expertise was most relevant. I hoped that the exercise in policy issue exploration, at this stage, would provide me with an understanding of how Norway and Canada had "structured the problem" of nutrition and food policy as health promotion strategy. As a result of

this procedure it was possible to proceed directly to the preparation of the Delphi questionnaire [Q2].

The guide to policy issue exploration included about 40 questions (the specific questions regarding Norway and Canada can be seen in the Appendices) on:

(a) The Norwegian-Canadian health system;
(b) The food and agriculture system;
(c) Nutrition and food policy formulation;
(d) Policy implementation;
(e) Policy evaluation. [4]

Fig. 3.C shows what information I needed to obtain in the procedure of substituting for Q1.

I used this procedure as an alternative to Q1 (thus experts were directly involved in the assessment and exploration task). It provided background information to the policy and formed the basis for building the subsequent questionnaires.

Fig. 3.D summarizes the various stages of the analysis of the Canadian and Norwegian approaches to health promotion. For reasons that will be explained later (see: Section 3.5.1) the use of the Delphi method was feasible only for the analysis of the NNFP.

Fig. 3.C - Check List

The following questions were proposed as a check-list to ensure that enough information had been provided.

[1] Does the Government recognize nutrition and food problems?

-- How was the problem identified and defined?

-- Is it linked with health, welfare, agriculture, taxes, incomes, distribution of resources, etc.?

[2] Which kind of policy has been formulated in order to tackle such a problem?

-- What have been accepted and what rejected as approaches to nutrition and food problems?

[3] What are the major obstacles for the successful implementation of the policy?

[4] Which governmental and non-governmental organizations have the responsibility for carrying out the policy?

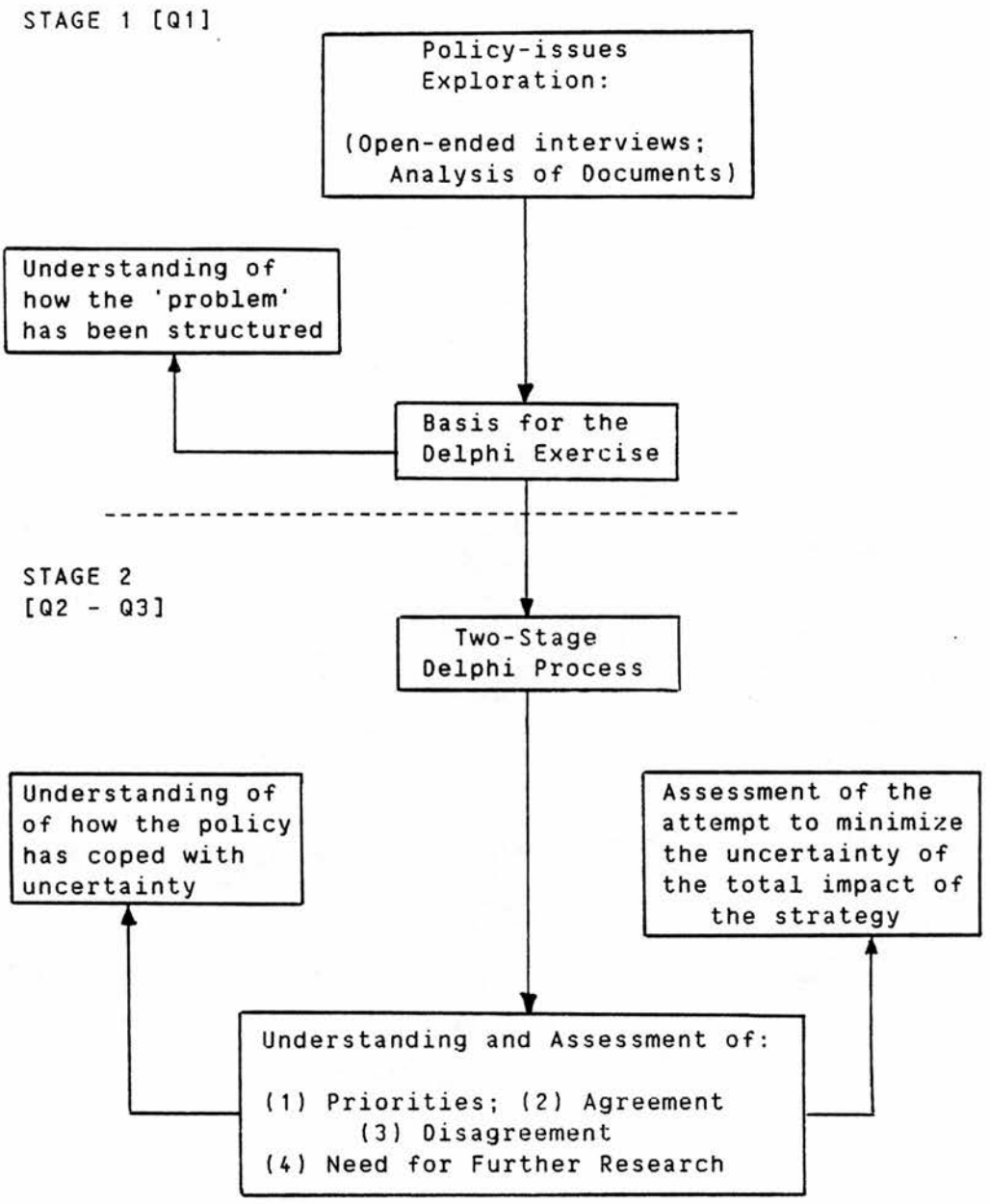
-- Which functions and how much power have these institutions?

-- Is the administrative structure of the policy capable of coping with the problems which will be encountered at the policy implementation and evaluation stages?

[5] What is the approach chosen in order to cope with uncertainty?

-- How has this approach attempted to minimize the uncertainty of the total impact of the strategies implemented?

Fig. 3.D - Analysis of the Norwegian/Canadian Approaches to Health Promotion Policies



STAGE 1 is relevant for the analysis of both the Norwegian NNFP and the Canadian approach to nutrition policy;

STAGE 2 is relevant only for the analysis of the Norwegian NNFP.

3.5 The Design of the Delphi

In the design of any delphi exercise we can distinguish two phases. The first phase is entirely dependent on the result of the researcher's activities and comprises: (i) formulating the aim of the Delphi; (ii) the selection of respondents; and (iii) the determination of the sample size. The second phase is characterized by the Delphi process itself; namely: (iv) communications from the experts to the researcher; (v) analysis and feedback from the researcher to the experts, and so on.

In this Section I shall describe these two stages and explain how the Delphi process has worked in my analysis, pointing out its benefits and drawbacks.

3.5.1 Delphi Method: Stage I

As already mentioned the researcher's decisions characterize this stage (see below).

1. The Aim of the Delphi - In my research project the aim was to use the Delphi technique to analyse how a given policy has coped with uncertainty. The Delphi method was therefore used to explore and assess the numerous issues involved in pursuing an efficient and effective nutrition and food policy in Norway.[5]

The first stage is the key to the Delphi process. If respondents do not understand the aim of the Delphi exercise, they may answer inappropriately or become

frustrated and lose interest (see: Delbecq et al., op. cit.). In Norway I had to reassure several experts (particularly those not involved in the academic field) that this Delphi exercise was perfectly straightforward and easy to cope with. In many cases I had also to provide material about the Delphi process as many experts were not familiar with such a technique (I had foreseen the possibility of such a request and consequently prepared a 7 page background information document on the Delphi).

2. Select and Contact Respondents - The question here is: "who should be on the respondent Delphi panel?" For my Delphi exercise, I set out a list of general criteria for experts and decision-makers (in Norway very often the same person can be involved both as an expert and as a decision-maker in various stages of the development of the NNFP). The list is the following:

a) he/she must be involved in the policy;
b) he/she must have relevant information to contribute;

c) he/she must be motivated to include the Delphi task in his-her schedule time;

d) he/she must feel that the aggregation of the judgements of a respondent panel will include information which he/she also values and would not otherwise have access to.

As far as the identification of the Norwegian experts is concerned, the problem was easily resolved (see below).

As regards the Canadian panel, I wanted to include 4 categories of respondents: (i) federal decision-makers; (ii) provincial decision-makers; (iii) federal experts; and (iv) provincial experts. However, in Canada, the selection of experts for a Delphi exercise proved to be an impossible

task for the following reasons:

a) The policy area relating to nutrition policy is highly fragmented. Many institutions have jurisdiction over this area at federal, provincial and local levels. This, of course, hampered the procedure of selecting experts (although a random choice was still possible);

b) Because of this highly fragmented nature of nutrition policy, it was difficult (if not impossible) to find someone who had the "overall picture" of this policy area. For example, the two persons who were considered to be "the best experts" by the majority of interviewees, at both federal and provincial level, denied that they themselves were in a position to judge what was going on in this intricate policy-making process. This can be explained by the next comment.

c) In the Canadian approaches to health promotion we have nutritional guidelines supported by health education programmes rather than a nutrition and food policy per se. The aim of the Delphi would have become therefore an understanding of why a nutrition and food policy is nowadays impracticable in the Canadian context. There is no need for a Delphi in order to explore this latter issue (as most of the Canadian experts pointed out) since there is a vast literature and a number of federal and provincial documents as to why this is so.

In conclusion, in Canada I had to interview many more people than planned, in order to gain an understanding of the context within which nutrition-related matters are discussed (see Sections 3.1; 3.2). This was a rather complex and long research procedure as many governmental and non governmental institutions have jurisdiction in this policy area at both federal and provincial levels (see: Chapter 6). Moreover, as mentioned in Section 3.1, a careful gathering of documents and studies had to be done, covering not only the federal level but also the material on nutritionally-related programmes in various provinces. The difference in methodology used in Canada and Norway is reflected in the length of time needed for carrying out this fieldwork. 5 months were needed for accomplishing the Canadian fieldwork, while only 3 weeks were spent in Norway

(N.B.: the Delphi process was carried out from the University of Edinburgh).

3. Select Sample Size - The criterion for sample size, within a Delphi procedure, is not necessarily a statistical one. Usually the size of the panel is variable. The literature on this subject suggests that with a homogeneous group of people (as in my case) 10 to 15 participants might be enough (see: Linstone and Turoff, 1975). However, in cases where various reference groups are involved, the size of the sample may be considerably larger. By and large, we should also note the fact that including more and more individuals should be considered as only of marginal benefit to this operation (see: Linstone and Turoff, op. cit.; see also: Dalkey, 1963; 1967; 1969; Helmer, 1967).

The Norwegian panel is composed of 21 experts (20 Norwegian experts and a well-known non-Norwegian academic expert on the NNFP). These experts are either academics or working in key positions in the following institutions: Directorate of Health; Dept. of Social Affairs; Dept. of Agriculture; Dept. of Consumer Affairs and Government Administration; NNC; H5; and voluntary organizations (see: Fig. 7.A in Chapter 7). These 20 individuals comprise virtually all those with key responsibilities in the development of policy.

3.5.2 The Delphi Process: Stage II

In the analysis of the NNFP the Delphi process comprised:

(a) the development of [Q2]; (b) the analysis of [Q2]; (c) the development of [Q3]; and [d] the analysis of [Q3].

a) Development of Q2 - The development of Q1 and its analysis have been explained in section 3.3.1. A list of 37 policy issues (related to policy aspects of the NNFP such as: (i) organization; (ii) health education; (iii) tactics chosen; and (iv) evaluation and research) distilled from the analysis of the answers to the questions contained in the guide for exploring policy issues related to the development of the NNFP (see appendix). Among these policy issues a certain degree of overlapping still existed, but it was hoped that these overlaps would have been reduced in the course of the "distillation Process" (see Fig. 3.A & Fig. 3.B).

In my research Q2 asked participants to review the items identified in Q1 as summarized by the researcher. They could argue in favour of, or against, those items. It also asked participants to rank items and to establish preliminary priorities amongst them (the instructions given are shown in Appendix B).

The benefits of Q2 were:

(1) Areas of agreement were identified;
(2) Areas of disagreement were identified;
(3) Issues requiring further clarification were identified;
(4) An early understanding of priorities emerged.

A few words on these benefits may help (see: Delbecq et al., 1974).

Agreement: the comments and priority-voting indicate those areas where consensus is already clear.

Disagreement: the items in Q2 indicate the initial position of participants. Comments and reactions to the items can further clarify those positions. Based on this information, the analysis of Q2 can indicate, to some degree, why differences can occur.

Clarification: items on Q2 where respondents are unclear as to the meaning can be identified. Then in Q3 the item can be reconstructed so that misunderstanding does not distort final voting.

Understanding: Q2 is the beginning of a dialogue between participants. Questions can be raised. Statements of support and criticism can be made. Results will be relayed to all participants through Q3, allowing respondents to consider these further clarifications and vote accurately. The intent is to help participants to understand each others' position and to move towards accurate judgement concerning the relative importance of items.

b) Analysis of Q2 - The analysis comprised: (i) the importance attributed, by the participants, to the resolution of a particular policy issue; and (ii) a procedure for summarizing comments made about the issue in a form that attempted to be both thought-provoking and easy to understand. The flexibility of the method allowed me to try some refinements. Because I was not involved in policy-making but in the exploration and assessement of policy issues it was essential to assess the degree of consensus on various assessments of an issue, but also to consider the voting behaviour of people who appear to be out of line with the majority consensus. This raised the question of whether these two aspects can be incorporated im Q3. Let's suppose that one respondent ranks highly an issue that no one else selects, then:

** he/she may be asked to defend that position; or

** an appropriate weighting system can be devised to enhance the meaning of that vote; or

** Q3 may be constructed exclusively for such minority voters.

The above considerations are crucial to an analysis of policy issues. The flexibility of the method should therefore prevent a mere process of regression towards the mean (which could, however, be extremely important in a decision-making situation). In my Delphi exercise I asked respondents to defend their "extreme position" by contacting them separately and subsequentely incorporating their contributions into Q3.

c) Development of Q3 - By the time the Norwegian experts faced Q3 the main issues had been identified [Q1]; clarification, supportive statements and criticisms had been made and a preliminary indication of priorities had been obtained throughout [Q2]. Q3 asked participants to review prior responses and express their final individual judgements on the issues (see: Delbecq et al., op. cit.; Linstone and Turoff, 1975). The expected outcome of the final stage of my Delphi exercise was:

a) to indicate areas where diversity of judgement existed, but also to permit the aggregation of judgements;

b) to provide guidelines for future research and careful consideration of particular issues within other policy-analysis activities in my research;

c) to provide closure of the study.

Fig. 3.E shows the results which were yielded from the various phases of the Delphi process.

d) Analysis of Q3 - It was very important, also in this final stage, to identify consensus as well as diversity of judgement. Although priorities (regarding the importance of an issue, its desirability and feasibility of resolution,

etc.) were based on the aggregate votes, individual differences in judgement still existed. The magnitude of these differences and the exploration of possible reasons behind the different opinions were of major importance for my analysis.

Fig. 3.E - Results obtainable from the Delphi

Q	Results of, and Benefit from, the Policy issues involved
[Q1]	- Basic information about the policy - Criticisms - List of policy issues
[Q2]	- Criticisms and supportive statements - Areas of Agreement-Disagreement or Need for Further Clarification - Preliminary indication of priorities
[Q3]	- Review of prior responses - Final Ranking

3.6 Methodological Devices Used in Conducting the Delphi Process

Before discussing the use of some of the main methodological devices used in the Delphi technique, I would like to point out that in my research this technique must be viewed only as a tool for organizing information and policy judgements on policy issues, not as a technique for studying experts' values (there are other more powerful techniques designed for this purpose).

3.6.1 The Problem of "Homogeneity"

In using the Delphi methods difficulties may arise from differences in language and logic when participants come from diverse backgrounds. In my research this could indeed affect the quality of the contributions of the Norwegian experts who were asked to give written responses in English (although their English was of a pretty high standard). However, none of the selected experts considered language as a problem.

At any rate, having used the Delphi technique in policy analysis, I realized that it was crucial to improve the capability of the method in guaranteeing "homogeneity of language" (i.e. the way respondents communicate with the researcher and among themselves) and "homogeneity of assessment" (the way participants rate the importance of an issue, its desirability, feasibility of resolution, and so forth). The many Delphi studies which have been carried out

in the last twenty years and the relevant literature on this subject (in particular Linstone and Turoff, 1975) helped me in this task. Key words were proposed to the participants in order to increase homogeneity in communication. Instructions used for rating the "Importance of an Issue" its "Technical Feasibility" and "Political Feasibility" are also shown in Appendix B.

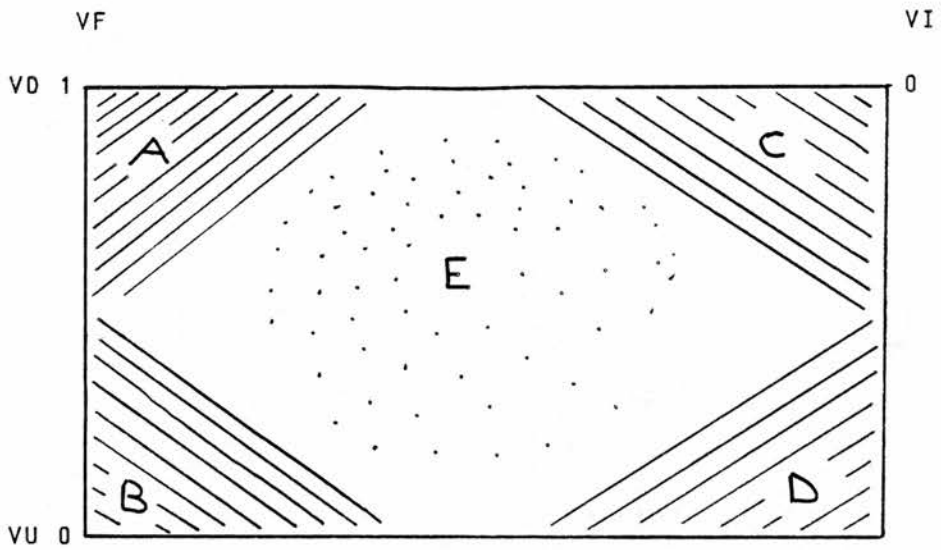
I was also aware of the fact that the NNFP is characterized by an attempt to take policy measures within an intersectoral approach. Thus, it may seem incorrect to estimate the likelihood of occurrence of each individual event (a resolution of a particular policy issue or the decision to take a specific measure) in isolation from the others (see: Section 3.7). Nevertheless, it was of great importance to obtain subjective judgements on the "Probability of Occurrence" of a specific event (i.e. the probability of resolving a given policy issue). These considerations may also be applied when estimating the "Possible Impact" of a particular policy issue in the development of a given policy. The definitions and instructions in Appendix B show how I designed scales to guide these subjective judgements. The information obtained from the delphi questionnaires provided a valuable source of material in assisting me in the writing of Chapter 7.

I would like to conclude this section by mentioning a simple device I have used to classify the ratings of desirability and feasibility. Let us suppose that a rating scale from 0 to 1 has been devised for both variables

(although this is not always an easy task in practice). Let us suppose also that "0" indicates a "Very Infeasible (VI) and "Very Undesirable" (VU) resolution of an issue; while "1" indicates a "Very Feasible (VF) and "Very Desirable" (VD) resolution.[6] Then a matrix, such as that in Fig. 3.F can be constructed. Such a matrix can be very useful to classify the various issues involved with the policy as well as to guide further analysis of those issues.

Generally speaking, issues in area "A", for instance, indicate those issues that have been rated as being "Very Desirable" and "Very Feasible" and therefore this area comprises a set of decisions which can easily be taken (i.e. an issue ceases to be a "policy issue"). In an opposite situation are those issues in area "D". Issues in area "B" and "C" are either feasible but rather undesirable or desirable but rather infeasible. These issues may indicate, for example, the need for further clarification in the next Delphi phase or suggest the orientation of subsequent research activities. However, issues that are in area "E" indicate,very often, those issues which are characterized by the highest uncertainty. Of course, as I was involved in a policy analysis exercise I took these issues very much into account. A further exploration of these issues was therefore attempted as well as the identification of the sources of uncertainty.

Fig. 3.F - Matrix of Desirability-Feasibility



3.6.2 The Problem of the Use of "Experts"

In their outstanding article ("On the Epistemology of the Inexact Sciences"), Helmer and Rescher, in 1959, offered a new epistemological approach to the so-called "inexact sciences" (Helmer and Rescher, 1959). They point out that while in the exact sciences explanation and prediction have the same logical structure, this is not so in the inexact sciences. According to these authors, this therefore permits various methodological innovations in the inexact sciences (e.g. expert judgement and simulation) (see: Helmer and Rescher, op. cit., p.42).

Bearing in mind the theoretical background provided by Helmer and Rescher, I would like to draw attention to some issues related to the use of experts.

The first issue goes back to the problem of preserving objectivity in the face of reliance upon expertise.

> "Can we accept the utilization of intrinsic expert judgement within the framework of an inductive procedure without laying ourselves open to the charge of abandoning scientific methods and substituting rank subjectivity?" (Helmer and Rescher, op. cit. p.42).

The reasons for our reliance on "expert opinion" in exploring or assessing complex problems are obvious. What is often not so clear is which kind of criteria to use in the selection of experts. This leads to another type of issue (see below).

The selection of "appropriate experts" must not, of course, be a matter of mere personal preference. On the contrary it must follow a procedure governed by objective criteria. The use of experts in a Delphi process raises the following questions.

(i) How far can a highly structured group communication (as the Delphi process claims to be) improve the use of an expert as an objective indicator?

(ii) How can a researcher, working in an unfamiliar context (as in my case), get information about the expert and evaluate his-her appropriateness?

(iii) How far can the incorporation of expert judgement into the structure of a Delphi process succeed in getting closer to the kind of objectivity assured in other scientific investigations?

Although the selection of the Norwegian experts was facilitated for the reasons mentioned in Section 3.5.1, I

would like to point out some of the issues related to the search for "objective criteria" in choosing experts.

The first criterion of expertise is, of course, knowledge. However, the assessment of the possession of knowledge in a complex and interdisciplinary field may not be an easy task. Moreover, the expert's knowledge is not enough. It is necessary to evaluate his/her past record in "prediction performance" and/or capacity for contributing to the exploration of a particular problem. In the area of health promotion (which is characterized by uncertainty and rapidly changing environment) this task can prove to be rather awkward (see below).

According to Helmer and Rescher (op. cit.) the simplest way of assessing an expert's performance is in terms of reliability. The degree of reliability is defined as the relative frequency of cases in which, when confronted with several alternative hypotheses, the expert ascribed to the correct alternative among them a greater personal probability than to the others. However, on a closer analysis what matters is not so much an expert's absolute degree of reliability but his-her relative degree of reliability (see: Helmer and Rescher, op. cit.). This is his-her reliability as compared to that of the average person or to that of an individual with some general background knowledge in a particular field.

But even this may not be enough. A more subtle assessment of the qualifications of an expert may be required. Thus one method could be that of selecting experts in terms of their "accuracy". The degree of accuracy of an expert's

predictions is

> "(..) the correlation between his personal probabilities [p] and his correctness in the class of those hypotheses to which he ascribes, say a probability of 70 per cent; approximately 70 per cent will eventually turn out to be confirmed" (Helmer and Rescher, op. cit.).

Accuracy in this sense does not guarantee reliability, but accuracy in addition to reliability may be sufficient to distinguish the real expert from the specious one.[7] Although the above considerations are fine in theory, there was no way, in my fieldwork, of assessing the experts' degree of reliability and accuracy in practice. Moreover, these "objective criteria" tell us very little about the potential effects of interactions among experts or the impact of feedback and aggregation and cluster of experts' subjective assessments. Unfortunately, I had to rely on much less scientific criteria such as those mentioned in Section 3.3.1 (See also note [8]).

3.6.3 Reasons for the Possible Failure of a Delphi Process

By using this technique I have come to the realization that many of the problems facing me in the analysis of the NNFP were common to the majority of Delphi exercises. In order to avoid failure, it was therefore very important to be aware of the reasons for disappointing results being obtained occasionally. Generally speaking, some of the common reasons are the following (see: Linstone and Turoff, op. cit., p. 6)

*** Imposing views and preconceptions of a problem upon the

respondent group by overspecifying the structure of the Delphi and not allowing for the contribution of other perspectives related to the problem.

*** Poor techniques of summarizing and re-presenting the group response and ensuring common interpretations of the evaluation scales utilized in the exercise.

*** Ignoring and not exploring disagreements, so that discouraged dissenters drop out and an artificial consensus is generated.

*** Underestimating the demanding nature of a Delphi and the fact that the respondents should be recognized as consultants and properly compensated for their contribution.

In Sections 3.5.1; 3.5.2 and 3.6.1, I have illustrated how I attempted to minimize the risk of failure; nevertheless the above remarks were very much of concern throughout the Delphi process.

In conclusion, I would like to stress the fact that on the surface, The Delphi method seems to be a very simple concept that can easily be put into use. There is therefore the risk of launching straight into the use of the Delphi procedure without fully considering the problems involved.

3.6.4 Delphi and its Lack of Theoretical Basis

It has been pointed out by many that the Delphi method still lacks a sound theoretical basis (see: Sackman, 1974; Linstone, 1975; Coates, 1975). According to Helmer (1975) this is largely due to the fact that the Delphi process, by definition, is concerned with the utilization of experts' opinion and that experts are rarely available as experimental laboratory subjects. Delphi experience, therefore, is derived almost entirely from studies carried

out without proper experimental controls.

Although there is room for further investigation in this area, I think that Helmer (op. cit., p.6) is right in saying that:

> "Further solidification of the Delphi technique, based on careful experimentation, clearly would be desirable, especially in view of far-reaching applications (..). Among these, particular attention is deserved by the following two, one of which has to do with inputs into research, the other with the utilization of research output. The first such application consists in the employment of Delphi surveys to provide judgemental input data for use in studies in the social science area, in cases where hard data are unavailable or too costly to obtain. (..) The other major application of the Delphi (..) is to the process of gathering expert opinions among the nation-wide "advice community" on which governmental decision-makers frequently rely. In this mode of application, Delphi can be of considerable utility, both by systematizing the process and by lending greater objectivity to its "adversary" aspects".

Turoff (1975a) points out that while the Delphi designers may be accused of ignoring scientific rigour in applying techniques without sufficient experimentation, they are meeting a demand that cannot be met otherwise. Three comments on this statement immediately spring to mind:

(i) In the social sciences it is very common to approach problems in spite of the lack of an ideal "scientific rigour" or technique:

(ii) The Delphi process seems to me not to be less scientifically structured than, for instance, techniques such as interviewing or participant observation; although these are now widely accepted as tools for policy analysis.

(iii) The possible limits of the Delphi were minimized in my research as this technique was used only as a guide in the identification and exploration of policy issues. I <u>did</u> <u>not</u> use the Delphi to obtain estimates of the magnitude of the total uncertainty present in the NNFP. Nor did I use it in generating possible future scenarios for the NNFP with forecast probabilities of occurrence.

3.7 Alternatives to the Delphi Method in Situations Characterized by Uncertainty

Any significant new approach to policy analysis, such as the use of the Delphi method, inevitably generates criticism as well as consensus. The most extensive critique of Delphi is the Sackman Report (1974; see also: Sackman, 1976; Welty, 1971). This report raises its voice with indignation:

> "The future is far too important for the human species to be left to fortune tellers using new versions of old crystal balls. It is time for the oracle to move out and science to move in" (Sackman, op. cit.).

An endless discussion could follow the above statement. I agree with Linstone (1975) when he says that:

> "Science to Sackman means psychometrically trained social scientists. (..) it is in the same vein as the illusion that science is "objective", that only Lockean or Leibnizian inquiring systems are legitimate, and that subjective or Bayesian probability is heretical. Orthodoxy faced with new paradigms often responds with sweeping condemnations and unwitting distortions" (Linstone, op. cit.).

Coates (1975), in his review of the Sackman Report, offers a view of Delphi as a method of last resort in dealing with extremely complex problems for which there are no adequate models. As such,

> "(..) One should expect very little of it compared to applicable analytical techniques. One should expect a great deal of it as a technique of last resort in laying bare some crucial issues on a subject for which a last resort technique is required" (Coates, op. cit.).

By and large, I would argue that the more uncertainty there is in a situation, the more likely the Delphi method is to succeed where other, more sophisticated, methods may

fail.[9]

One of the major drawbacks in using the Delphi is that it tends to treat each component of the analysis as an independent variable (see: Coates, 1974).
Bearing in mind what has been said so far, in my study I could have used a Cross-Impact Analysis. This technique is a more sophisticated version of the Delphi where individual issues, events or other components of the policy are not only independently evaluated, but evaluated in relation to each other. For example, event "A" may have a relatively low probability of occurrence as well as event "B". But the probability of event "B" may be increased if event "A" is realized. Cross-Impact analysis provides therefore a greater degree of analytical depth and increases the sensitivity and consistency of the model of analysis (see: Coates, 1974; Duval et al., 1974).

Another alternative could be the use of an adaptation of Decision Analysis, which is a technique based on subjective probability estimates as forecasts.[10] However, these two alternatives were ruled out both for what has been said in the final part of Section 3.6.4 and because:

a) the time-schedule of the research would have been prolonged as more than a 3-round stage process would have been necessary;

b) many experts would have had difficulty in fitting such time-consuming tasks into their commitments;

c) the stage of "sensitivity analysis", present in both Cross-Impact and Decision Analysis, was very difficult to carry out in my analysis.This difficulty, among other problems, is associated with disagreements on a workable "weighting system" to use in evaluating potential outcomes.

d) many experts would not have accepted being involved in

very complicated techniques; and

e) the cost of the research would have increased in such a way as to jeopardize the project itself.

3.8 Conclusion

In this Chapter I have attempted to summarize the methodology in my research and the role of the Delphi technique used as a method to summarize complex problems related to policy analysis. Different methodological frameworks had to be used in analysing the Norwegian and Canadian approaches to health promotion policies. Although the analysis of these policies in Norway and in Canada will permit a comparison of these two approaches, from a methodological point of view the research did not intend to follow the pattern of a classical comparative study (with the consequent standardization of methodological instruments).

As far as the use of the Delphi technique is concerned, it is worth saying that the Delphi procedure chosen pivots more on the concept of "Policy Delphi" than the classical Delphi method (see Turoff, 1970; 1971; 1972; 1975a; 1975b). In my case, in fact, the Delphi was a tool for the analysis of policy issues rather than a mechanism for making decisions. In my research the Delphi technique was used as an organized way of correlating views and information pertaining to a specific policy area and for allowing the respondents representing such views the opportunity to react to and assess differing viewpoints (see: Turoff, 1975a, pp. 86-87).

It has been pointed out that the selection of respondents and the establishment of some means of evaluating the ideas

expressed by them are two of the most difficult tasks in a Delphi procedure. At any rate, in my research the effectiveness of the use of the Delphi must not only be evaluated on its own, but in relation to its integration with techniques such as interviewing and analysis of documents which are commonly used in social policy analysis.

NOTES

[1] To this end, the concept of "feasibility" could be broken down into dimensions such as "political", "ethical", and "technical" feasibility, and, when possible, the calculation of their magnitude and their ranking should also be pursued.

[2] Since its invention about 20 years ago for the purpose of estimating the probable effects of a massive atomic-bombing attack on the United States, and its subsequent application in the mid 60's to technological forecasting, the use of the Delphi has spread to many other fields. Whilst its principal area of application has remained that of technological forecasting, it has been used in many other contexts in which judgemental information is indispensable. These include normative forecasting; the ascertainment of values and preferences; estimates concerning the quality of life; simulated and real decision-making; and what may be called "inventive planning" (i.e. the identification of measures that might be taken to deal with a given problem situation and the assessment of the feasibility, desirability and effectiveness of such measures) (see: Helmer, 1975, Foreword).

[3] The name "Delphi" is derived from the Oracle of Delphi. The original purpose of the Delphi technique was to forecast technological developments; so, like the Oracle, It was used to look into the future (see: Dalkey, 1967; Helmer and Rescher, 1959).

[4] It is not often so easy to distinguish among these phases of policy development (i.e. policy formulation, implementation and evaluation). Nevertheless, this classification of policy development was entirely acceptable in the analysis of the NNFP, while it was not so useful in Canada where the nutrition policy area is characterized by a sort of "disjointed incrementalism" (see Chapter 6).

[5] Turoff (1975a) defines a "policy issue" as follows:

> "A policy issue is one for which there are no experts, only informed advocates and referees. An expert or analyst may contribute a quantifiable or analytical estimation of some effects resulting from a particular resolution of a policy issue, but it is unlikely that a clear-cut (to all concerned) resolution of a policy issue will result from such an analysis; in that case the issue would cease to be one of policy." (Turoff, op. cit., p.84)

[6] There are many different voting scales that have been utilized in policy type Delphis (see: Turoff, 1975a). The rating scales used in my research have been mainly inspired by the study carried out by Jillson (1975), and also by Turoff's work (1975a; 1975b).

[7] This issue is very familiar to those involved in futures studies. A critical look at futures research suggests that there may be diverse schools in such a field. There are at least three different futurist schools: (a) "predictors"; (b) "utopians"; and (c) "planners". Of course, the role of expertise, knowledge, degree of reliability and accuracy have differing degrees of importance in each category.
It is worth noting that the complexity of the problem of uncertainty associated with health promotion strategies, as a relatively new area of health policy, may have several similarities with many elements in futures research. Some links with the emerging concepts of "future field", recently proposed by Amara, can also be found in the methodology used in my research (see: Amara, 1977; 1981a; 1981b; 1981c; see also: Amara and Salancik, 1972; Dror, 1973).

[8] For health promotion policies in particular, the activities and decisions to be taken should aim to answer three basic questions:

(a) What are the possibilities and choices for the future?
(b) What do we know about them?
(c) What do we wish to happen?

Generally speaking, the experts to be included in a Delphi exercise related to health promotion policy issues, should have pertinent information with which to answer each of these questions. It is interesting to note that answers to questions (a) and (b) imply the possession of knowledge and expertise; while answers to question (c) imply power and political will. Knowledge and power seem therefore indispensable ingredients in order to reduce the uncertainty related to health promotion policies.

[9] An ideal approach to analysing policy decisions would also imply an ideal approach for guiding the decision-making process. These ideal approaches would require the characteristics identified in Chapter 10, Section 10.1.
Namely: 1) First of all we should be able to evaluate several decision options relative to each other.
2) The approach should accommodate multiple objectives even if some conflict or seem to be incommensurable.
3) The approach should enable a mixture of tangible and intangible criteria to be considered.
4) The approach should provide for uncertainty about events as well as uncertain quantities.
5) It should be possible for uncertainty to be reduced when experiments are carried out or when sytematically-gathered data are available.
6) The approach should make it possible for the

decision-maker to incorporate time preferences as well as a conscious degree of intuition and value judgement.
7) It should be possible to include modelling and simulation when necessary.
8) The approach should be flexible enough and intelligible enough to deal with issues stemming from the political process (particularly regarding value judgements).

None of the approaches to policy-making and policy-analysis, available at the present, meets all the above criteria (see: Chapter 9).

[10] By using a "Decision Analysis" approach we explicitly consider the uncertainties involved in taking decisions. There are two important properties of probability to keep in mind in making subjective probabilities estimates (see: Weelwright and Makridakis, 1973).
(1) Considering all possible events (i.e. all possible outcomes) in a given situation. The sum of the probabilities assigned to each of these individual events must be exactly equal to "1".
(2) The probability assigned to a specific outcome can never be less than zero (0) or greater than "1".

Generally speaking, in carrying out a Decision Analysis we have to pass through 6 steps. These are: (a) Structuring the Problem; (b) Describing the Outcomes; (c) Valuing the Outcomes; (d) Assessing the Probabilities; (e) Folding back the Decision Tree; and (f) Carrying out Sensitivity Analysis.
For a description of these methodological steps see: Ziglio (1982c).

PART III

FIELDWORK: ANALYSIS OF THE CANADIAN AND NORWEGIAN APPROACHES TO HEALTH PROMOTION

Part III comprises four chapters. Chapters 4 and 5 analyse the develpment of health policy in Canada and in Norway respectively and account for the shift towards health promotion policy. The reasons for this shift, which are similar in both countries, lie primarily (particularly in Canada) in the need to cope with the problems of cost-containment in periods of low economic growth or economic recession and, to a lesser degree, the recognition of the limitations of traditional cure-oriented health policy in improving health in the population. In Chapter 4, particular attention will be given to the analysis of the Lalonde Report, as it provides the conceptual framework for health promotion policy in Canada.

Chapters 6 and 7 analyse in turn the Canadian and Norwegian approaches to nutrition policy as a health promotion strategy from the mid-70's to 1983. As both countries have long-term strategies (in Norway, for example, the NNFP's objectives are thought to be achievable around 1990) the present analysis covers only the first stage of development in the area of health promotion policy. The two Chapters (6 & 7) are structured differently, reflecting the contrasts in the two approaches. The analysis of the Norwegian approach draws on more empirical data as there is

already a well-structured National Nutrition and Food Policy. Canada relies on nutritional recommendations in the absence of an agreed-upon national nutrition policy incorporating agricultural and food policy.

The major policy measures used by Canada and Norway in the area of nutrition policy are also analysed. The results of my analysis indicate that in Canada greater emphasis is given to educational measures (and, to a lesser extent, also regulatory ones); whereas Norway also makes use of "facilitating" policy measures (e.g. food subsidies). Finally, these two chapters explore the desirability and feasibility of using alternative policy measures, in an effort to identify sources of uncertainty surrounding the policies chosen by Norway and Canada.

In view of the length of Chapters 6 and 7, quotations from interviews and from the comments made by experts in the Delphi exercise had to be kept to a minimum. The Delphi material is reproduced in full in the Appendix.

CHAPTER 4.: THE DEVELOPMENT OF HEALTH POLICY IN CANADA

In the first part of this Chapter I shall summarize the development of health policy in Canada (mainly before the publication of the Lalonde Report in 1974). I shall then analyse the Lalonde Report as a major document of health policy. In April 1974 the Canadian Ministry of National Health and Welfare released a "working document" entitled "A New Perspective on the Health of Canadians". This document is often referred to as the "Lalonde Report", after Marc Lalonde, who was the Minister for National Health and Welfare at that time. The document represents a landmark in thinking about preventive strategies for dealing with health problems in developed countries. The main message of Lalonde's document is that further improvements in the health of Canadians will depend on enhancing the quality of the environment and reducing self-imposed risks.

In the analysis of the Lalonde Report I shall consider some of the relevant methodological, political and ethical issues that have influenced the content and shape of the Canadian health promotion approach.

4.1 Health Policy in Canada: A Background

The provision of health care to Canadians was placed under the jurisdiction of provincial legislatures in the British North American Act of 1867, with federal responsibility for the health care of the Indians, Inuits and Aliens.[1] However, subsequent developments showed the increasing involvement of the federal government in shaping Canadian health policy. The need for this increased involvement of the federal government can be explained by the resulting imbalance between fiscal resources and constitutional responsibilities which has made federal-provincial relations the primary concern of Canadian health politics (see: Vayda and Deber, 1984, p. 191).[2]

> "By the time Canada celebrated her centennial, the federal Parliament was allocating roughly 10 per cent of its funds for the provision of health care, a percentage that certainly would have amazed the Fathers of Confederation." (Aucoin, 1974, p.56)

The entry of the federal government in the field of health policy has been explained by Aucoin (op. cit.) as being influenced by:

(i) the increased need for, and expectation from, health services - particularly in the period after world war II; and

(ii) the pressure stemming from the "North American" concern for equal opportunities for all, which pushed the government to provide comprehensive health care programmes.

A federal-provincial conference, held in 1945, proposed universal health insurance with federal-provincial cost sharing. Despite favourable public opinion, the 1945 health insurance proposal was viewed as a threat to provincial

autonomy and was not enacted. However, the concept of federal-provincial cost sharing for health services was accepted in principle. In fact, planning and hospital construction grants were made available. By 1955, five provinces had universal insurance plans that

> "...rescued their hospitals financially and proved popular politically, and these provinces pressed the federal government to honour its 1945 hospital insurance cost sharing offer". (Vayda et al.,1979, p.219)

The outcome of this political pressure on government was a series of health programmes in which federal and provincial authorities accepted a sharing of the financial responsibilities. In terms of total government expenditure the Hospital Insurance and Diagnostic Services Act [HIDS Act] of 1957 and the Medical Care Act of 1966-67 are undoubtely the most important. (Tables 4.1; 4.2; 4.3; 4.4; and Figures 4.A and 4.B provide information on national expenditures in Canada since the 1960s). Moreover, as a result of these two Acts, Canada obtained its universal health scheme, where virtually every Canadian has comprehensive medical and hospital insurance. However, as health care in Canada has been seen as a natural extension of hospital and medical services, where the responsibility is undisputedly provincial, it must be recognized that Canada has never had a "national health care system". In fact, it has 10 provincial health care systems plus two in the Northern Territories (where the federal government plays the major role) (see: Vayda and Deber, op. cit.; Aucoin, op. cit.).

To qualify for federal-provincial cost sharing for hospital and medical services the provinces had to meet certain requirements (See: Taylor, 1973; 1978; Soderstrom, 1978; Vayda et al., op. cit.). Generally speaking, these requirements were:

(1) Universal coverage in uniform terms and conditions;
(2) Portability of benefits from province to province;
(3) Insurance of all medically necessary services; and
(4) A publicly administered non-profit program.

It has been shown that these federal-provincial cost sharing programmes also served as means of income redistribution between the wealthier and poorer provinces. [3]

Tab. 4.1 - Health Expenditure as Percentage of GNP in Canada in Selected Years

1960	5.5
1965	6.1
1970	7.2
1975	7.4
1980	7.5
1981	7.6
1982	8.4

SOURCE: Data for 1960-1975: OECD (1982, "Trends in Public Expenditure on Health"); Data for 1980-82: DNH&W (1984, "National Health Expenditure in Canada: 1970-1982")

Tab. 4.2 Aggregate Health Expenditure in Canada, Millions of Current and Constant Dollars in Selected Years

Year	Current Dollars	Constant Dollars(*)
1960	2,137	2,963
1965	3,415	4,317
1970	6,256	6,456
1975	12,381	8,463
1980	22,179	9,849
1982(**)	30,088	10,973

(*) Constant dollars deflated by the implicit price index of the gross national expenditure, 1971=100.
(**) Preliminary data

SOURCE: DNH&W (1984, "National Expenditure in Canada: 1970-1982")

Tab. 4.3 - Annual Percentage Increase in Aggregate Health Expenditures in Canada, Current and Constant Dollars in Selected Periods

Period	Annual Percentage Change Current Dollars	Annual Percentage Change Constant Dollars (*)
1960 to 1965	9.8	7.8
1965 to 1970	12.9	8.4
1970 to 1975	14.6	5.6
1975 to 1980	12.4	3.1
1980 to 1982 (**)	16.5	5.6

(*) Constant dollars deflated by the implicit price index of the gross national expenditure.
(**) 1982 data are preliminary.

SOURCE: DNH&W (1984,"National Health Expenditures in Canada: 1970-1982")

Tab. 4.4 - Various Categories of Health Expenditures as Percentages of Total Health Expenditures in Canada, Selected Years

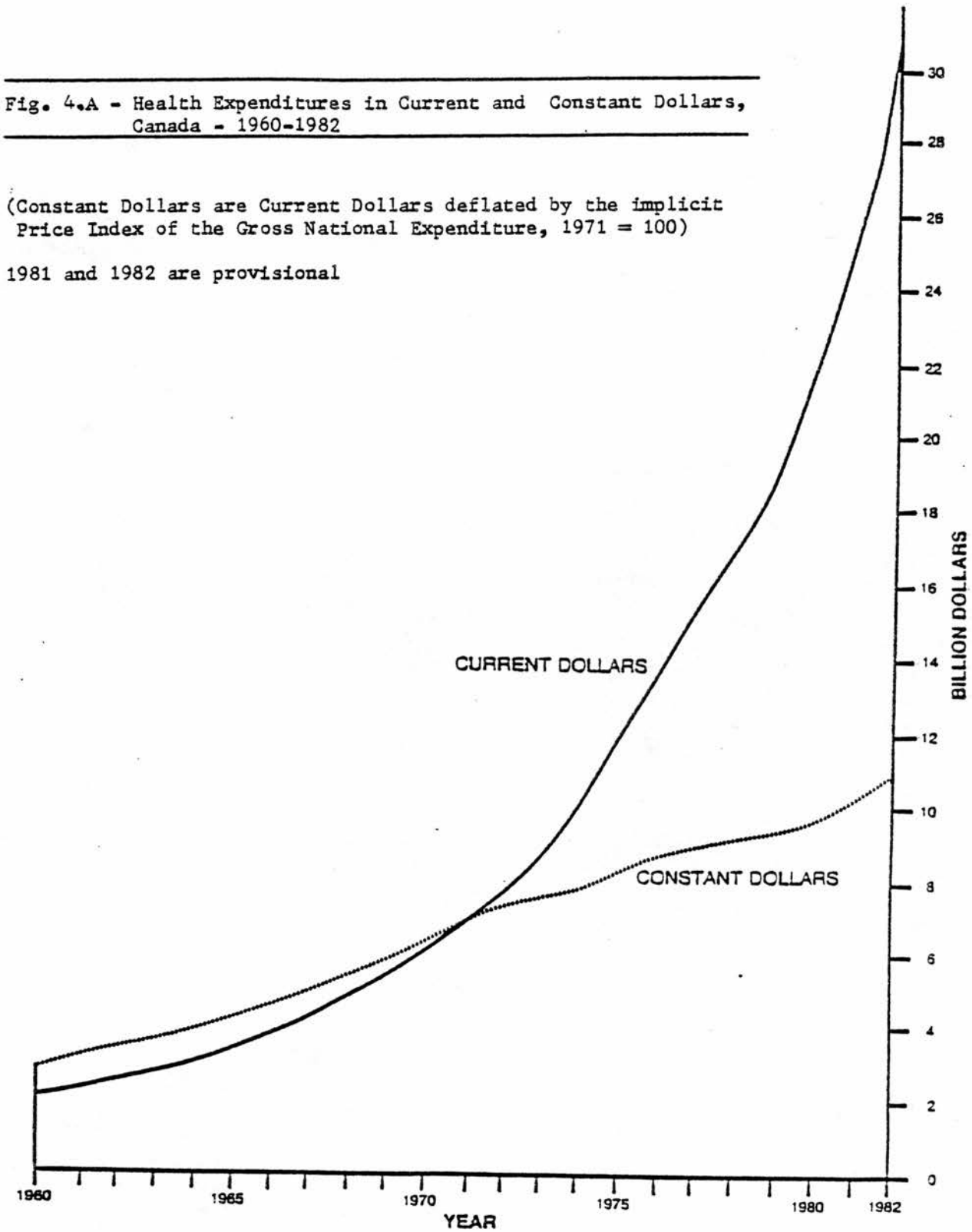
	1960	1965	1970	1975	1978	1979	1982
General and Allied Special Hospital	28.2	33.4	36.6	40.1	40.2	40.2	40.0
Homes for Special Care	5.7	6.1	7.2	9.2	12.2	13.7	13.7
Dentists' Services	5.1	4.7	4.2	4.8	5.8	5.8	5.6
Physicians' Services	16.6	16.0	16.6	15.5	14.8	14.5	14.7
All Drugs and Appliances	14.5	13.3	12.5	10.5	10.2	10.4	10.9
Capital Expenditures	9.2	7.5	5.8	4.9	5.5	5.2	5.3
All Other Categories	20.7	19.0	17.1	15.0	11.3	10.2	9.8

SOURCE: DNH&W (1984,"National Health Expenditures in Canada: 1970-1982")
(Data for 1982 are preliminary)

Fig. 4.A - Health Expenditures in Current and Constant Dollars, Canada - 1960-1982

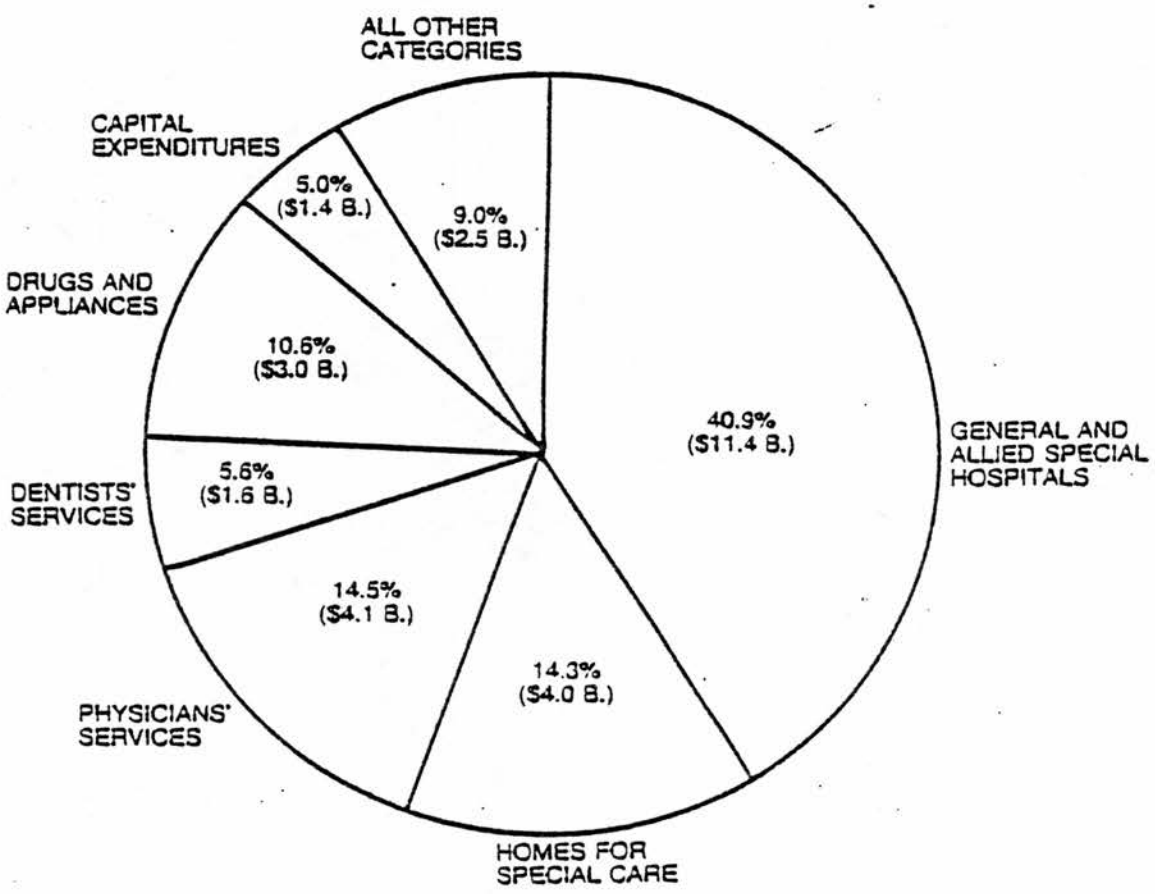
(Constant Dollars are Current Dollars deflated by the implicit Price Index of the Gross National Expenditure, 1971 = 100)

1981 and 1982 are provisional



Source: "Canada's National Provincial Health Program for the 1980s" (The Hon. E.M. Hall Special Commissioner) 1980

Fig. 4.B - Distribution of Additional Expenditure for Health in 1982 over 1960, Canada (Provisional Data)



Source: "Canada's National Provincial Health Program for the 1980s" (The Hon. E.M. Hall Special Commissioner) 1980

(The increase for each category is expressed as a percentage of the total increase and in billions of dollars)

4.1.1 Main Problems Concerning Universal Health Insurance in Canada

I shall now attempt to summarize the main problems and unforseen consequences of Canadian health policy in the period preceding the publication of the Lalonde Report, though it should be borne in mind that most of these problems have yet to be solved and still beset the present day health sector in Canada. By and large, the terms of both the HIDS Act and the Medical Care Act led to some of today's financial problems (See: Deber et al., 1982; Vayda et al., 1979), for 5 main reasons.

1. Hospital services were consolidated as a result of the HIDS Act. By 1961 all the provinces had accepted this Act. As , under this Act, the provinces met the federal cost sharing requirements only when services were provided in hospital, there were no incentives to use less expensive sites (see: Hastings, 1973). Vayda et al (1979, p.219) point out that

> "... between 1961 and 1971 the number of hospital beds in Canada increased twice as rapidly as the population (33 per cent vs. 18 per cent). Bed occupancy, which tends to correlate with bed availability, remained at about 80 per cent. By 1971, Canada had 23 per cent more beds than the U.S. and used 30 per cent more hospital bed days."

2. As the Medical Care Act was enacted ten years after the HIDS Act, it was supposed to operate within a well-established hospital-intensive system. The Act allowed federal-provincial cost sharing only for services provided by physicians.[4] Thus, both the HIDS Act and the Medical

Care Act removed financial barriers to medical and hospital care, but entrenched the most expensive means of delivering services (see: Taylor, 1973, 1978; Deber et al., 1982; Vayda et al., 1979).

3. Both the HIDS Act and the Medical Care Act failed to incorporate organizational procedures related to the ways of delivering health services (see: White, 1976). They did not tackle the numerous problems concerning the efficiency and effectiveness of this new health system (this was also confirmed by interviews with Prof. J. Hasting and R. Deber [10]; and with Dr. B. Mindell, Dept. of Public Health, City of Toronto, conducted in April and May, 1983). Problems of duplication of services, lack of coordination, and failure to consider less expensive alternatives of health care delivery, were amongst the weaknesses identified by various reports.

The most important of these reports at national level were:

(a) The 1961 Royal Commisssion on Health Services (known as the "Hall Commission") which was published in 1964;

(b) The 1969 Task Force on the Cost of Health Services; and

(c) The 1972 Report of the Federally-Funded Community Health Centre Project (known as the "Hastings Report").

These three reports provided recommendations mainly concerned with a more effective organization and more efficient provision of health services. These reports, the "Hastings Report" in particular, stressed the importance of a reorganization of the Canadian health system aiming at better coordination amongst the various services available

and a reduction in the number of hospital beds.

4. On health matters, the relationship between federal and provincial levels became very problematic over the years. Because the federal government had no jurisdiction in health care, both the hospital and medical insurance programmes were cooperative and voluntary. Nevertheless, the federal government spent, during the 70's, about 10 per cent of its funds on health expenditures (see: Deber & Vayda, 1982; Vayda and Deber, 1984). In spite of its financial commitment, the federal government had no control over the total amounts spent by the provinces. In addition, it has been claimed that the federal government had not received political credit for its contributions to health matters (Deber et al., op. cit.). By the mid 70's it was clear that the federal government was attempting to limit its financial commitment.

The dilemma for the federal government was how to limit its financial contributions without jeopardizing the principle of cost sharing programmes and without angering the provincial governments. It is within this framework that, in 1977, a new fiscal formula was settled on (The Established Fiscal Arrangements Act [EPF], known as "Bill C-37"). By and large, the attempt was to tie federal fiscal commitments to the growth of the gross national product (GNP) after 1974; and to create "tax room" for the provinces to balance the federal financial reductions (see: Soderstrom, op. cit.; Deber et al., op. cit.).

Tables 4.5 and 4.6 compare the last two years under the

cost-sharing formula and the first three years under the EPF. Tab. 4.5 indicates that over the five-year period the federal share of the cost of the HIDS and Medical Care programmes increased from 50.3 per cent to 56.8 per cent. It must be noted that the use of the term "federal contribution" to medical and hospital care after the implementation of the EPF contains two assumptions. The first assumption is that the "tax room" vacated by the federal government and thus available to the provinces continues to constitute a federal "contribution" (as legally defined in Section 17 of the Act), even though provincial governments must now take responsiblity for levying the taxes.

The second assumption is that: "the relative share of the combined totals of the 'cash grant' and the 'tax room' allocated to higher education, hospital insurance, and medical care insurance, continue to bear the same relationship to each other (i.e. higher education 32.4 per cent, hospital insurance 49.9 per cent, and medical care 17.7 per cent) that they did in the base year 1975/76." (Canada's National-Provincial Health Program for the 1980's - The Hon. E.M. Hall, Special Commissioner, 1980).[5]

5. The other initiative at federal level was the publication of the Lalonde Report (Lalonde, 1974). This document not only stressed the importance of health promotion, lifestyle modification and greater individual responsibility for health, instead of multiplying medical services, but introduced a "new philosophy" in considering health policy in Western developed countries (see: Section

4.2.1).

TABLE 4.5 Aggregate Provincial Government Expenditures on Hospital and Medical Care Insurance Programs (a) and Related Federal Contributions (b), 1975-76 to 1979-80

	Direct Cost Sharing		Established Programs Financing		
	1975-76	1976-77	1977-78	1978-79	1979-80
	$ millions	$ millions	$ millions	$ millions	$ millions
Provincial Expenditure (a)	6,510.8	7,514.0	8,043.7	8,786.3	9,631.6
Federal Contributions (b)	3,272.8	3,765.8	4,195.7	4,817.2	5,475.5
Cash (c)	3,272.8	3,765.8	2,101.0	2,497.5	2,948.6
Tax Room (d)	-	-	2,094.7	2,319.7	2,527.9
	%	%	%	%	%
Per cent Federal Contributions	50.3	50.1	52.2	54.8	56.8
Cash (c)	50.3	50.1	26.1	28.4	30.6
Tax Room (d)	-	-	26.1	26.4	26.2

Source: Canada's National Provincial Health Program for the 1980s (The Hon. E M Hall Special Commissioner) 1980

(a) Provincial Government expenditures (excluding the Yukon and Northwest Territories) are on a cash flow basis as recorded in the Provincial Public Accounts (and verified by direct communication with each Province). Excluded (except where data is not separable) are administration costs and expenditures on program benefits are included in Federal H.I.D.S. and Medical Care legislation. However, these Provincial Government expenditures are not identical with federally shareable program costs in 1975-76 and 1976-77, since shareable program items may differ in detail from official Provincial program items.

(b) These are Federal (excluding entitlements to the Yukon and Northwest Territories) contribution entitlements (not cash flow). For fiscal years 1975-76 and 1976-77, these are final federal contribution entitlements under the Medical Care Act, and preliminary calculation of entitlements under the Hospital insurance and Diagnostic Services Act. For fiscal years 1977-78, 1978-79 and 1979-80 these are derived from preliminary calculations of entitlements under EPF (less one income tax point and cash equivalent) prepared by the Department of Finance and the Department of National Health and Welfare.

(c) The cash contribution under EPF is defined here to include the basic cash contribution plus the cash transitional adjustment payment (as defined in the legislation) less the value of one income tax point equivalent) allocated to the hospital insurance and Medical Care programs using the formula specified in the legislation (tentatively) set at 68% of the total cash contribution pending final determination of base year shareable costs and contributions.

(d) The tax room portion of the federal contribution under EPF is the value of the tax room transfer less one income tax point, allocated arbitrarily to the Hospital Insurance and Medical Care programs in the same proportion of the total tax point transfer as specified for the allocation of each contribution.

TABLE 4.6 Total Health Expenditures by Provincial Governments (a) and Related Federal Contributions (b) 1975-76 to 1979-80

	1975-76	1976-77	1977-78	1978-79	1979-80
	$ millions	$ millions	$ millions	$ millions	$ millions
Provincial Health Expenditure (a)	9,039.4	10,321.2	11,288.2	12,542.5	13,897.2
Federal Contributions (b)	3,591.2	4,168.3	4,835.5	5,499.5	6,216.7
Hospital Insurance (c)	2,436.1	2,812.8	1,564.0	1,859.1	2,194.2
Cash (c)					
Tax Room	-	-	1,599.2	1,726.8	1,881.7
Medical Care (c)					
Cash	836.7	953.0	537.0	638.4	753.4
Tax Room	-	-	535.5	592.9	646.2
Canada Assistance Plan (d)	295.8	376.2	151.7	119.8	154.9
Extended Health Care (e)	-	-	463.9	519.4	578.3
Health Resources Fund (f)	20.3	24.0	22.1	41.4	8.0
Professional Training Grant (g)	2.3	2.3	2.4	1.7	-
Per cent Federal Contributions (h)	39.7	40.4	42.8	43.9	44.7
Cash	39.7	40.4	24.2	25.4	26.5
Tax Room	-	-	18.6	18.5	18.2

Source: Canada's National Provincial Health Program for the 1980s (The Hon. E M Hall Special Commissioner) 1980

(a) Provincial Government health expenditures on a cash flow basis as recorded in the Provincial Public Accounts. Includes health expenditures by health departments, medical care and hospital insurance commissions, social service departments and other departments. Does not include data from the Yukon and Northwest Territories.

(b) Includes all federal contributions on an entitlement basis, except Health Resources Fund and Professional Training Grant which are on a cash flow basis. Data for the Yukon and Northwest Territories is not included.

(c) See Table 4.5 footnotes (b), (c) and (d). Note particularly that federal contribution excludes one income tax point and its cash equivalent.

(d) These are preliminary estimated cost sharing entitlements under the Canada Assistance Plan for extended health care as defined under EPF and for other care items.

(e) These are final cash contribution entitlements under EPF for extended health care comprising the following: Intermediate nursing home care, adult residential care, converted mental hospitals, home care, and ambulatory health care.

(f) Cash flow from the Health Resources Fund.

(g) Cash flow from the Professional Training Grant.

(h) Federal contribution as a percentage of total health expenditures by Provincial Governments.

4.1.2 Recent Issues in Canadian Policy Development

The problematic relationships between the federal and provincial levels, and between the provinces and their health services providers are still characterizing current health policy issues. As has been noted in the previous section, the structure of the Canadian health insurance system is a mix of public funding and private practice.

> "The universal system initially paid the bills, but did not attempt to manage the programmes. Providers, particularly physicians, were (and still are) treated as private enterpreneurs who happened to operate in a publicly funded system." (Vayda and Deber, 1984, p. 195)

As has been pointed out in Section 4.1.1, Canada has overlooked the need for reorganization and management of the health system as a whole (interview with Prof. Hastings, Dept. of Health Administration, Univ. of Toronto, held in Toronto, April, 1983). The orientation of health policy in the early 80's is characterized by the persistent intention of the federal government to reduce its contribution to cost-shared programmes (see: Min. of Supplies and Services, 1981: "Fiscal Federalism in Canada"; see also the Government White Paper known as "Canada Health Act"). The 80's are therefore witnessing an increased confrontation between the federal and provincial governments and between the provinces and health professions (particularly the medical one). The issues of these confrontations are related to cost containment and management of the system.

According to Vayda and Deber (1984) the provinces have two options. The first is more private funding through

private insurance and user fees, which would however contrast with the Canada Health Act's intention to abolish such charges. The second option involves greater control and management of the health system by the provinces (these options were reconfirmed by Prof. Deber, Dept. of Health Administration, Univ. of Toronto, interviewed in Toronto in April, 1983). This latter option has already been taken up by Quebec (see: MacPherson, 1983). Moreover, greater control of the health sector by the provincial level is generally opposed by physicians.

Both scenarios are possible. Despite the fact that the Canadian solution to most problems has traditionally been moderation, the ideological differences underlying the two options (outlined above) need to be dealt with.

> "Extreme moves in either direction would thus represent an unlikely break with tradition, but they may prove to be unavoidable." (Vayda and Deber, op. cit., p.196).

At the moment (1984) it is difficult to foresee the direction of future health policy in Canada. Concern has been expressed that too much emphasis only on the efficiency and cost containment of the system might erode the principles of universality, comprehensiveness, accessibility and portability of the Medicare and HIDS programmes (see: Canadian Health Coalition, 1983; Ontario Health Coalition, 1983; National Council of Welfare, 1982).

In conclusion, it appears clear that in the 70's and early 80's there has been a lack of leadership and political will both to reorganizing the health system (for instance

along the line of the Hastings Report (see: Section 4.1.1; see also Smart and Stotsky, 1981)) and to providing guidance and commitment to the proposals contained in the Lalonde Report (see: Section 4.2).

4.2 A "New Perspective" on the Health of Canadians: The Lalonde Report

The Canadian Government's publication of its working document on "A New Perspective on the Health of Canadians" (Lalonde, 1974) is a turning-point in thought on preventive strategies for dealing with health problems in developed countries (see: Robertson, 1983a; 1985). The Lalonde Report is, in my view, characterized by the following three features.

Firstly, the document presents the attempt to tackle the cost-escalation of the health system arising from the undesired consequences mainly of the two Acts outlined in Sections 4.1 and 4.1.1. Let it suffice to mention here that in 1965 the total cost of health care services in Canada was 3.4 billion dollars; in 1970, 6 billion dollars; and in 1975 more than 12 billion dollars (see: Tab. 4.2). The Lalonde Report points out that the increasingly high costs of the health sector are caused by the "traditional view" of approaching health policy, where:

> "... most direct expenditures on health are physician-centred, including medical care, hospital care, laboratory tests and prescription of drugs." (Lalonde, op. cit., pp. 11-12)

The report argues that this expenditure goes almost entirely on treating illnesses which have already manifested themselves. This implies that we ought to set limits on the growth of the health care organization.

Secondly, the document claims that one way of improving the overall health of Canadians is to give priority to interventions that are not included in the traditional territory of health care. The Lalonde Report concludes that:

> "... there can be no doubts that the traditional view of equating the level of health in Canada with the availability of physicians and hospitals is inadequate. Marvellous though health care services are in Canada in comparison with many other countries, there is little doubt that future improvements in the level of health of Canadians lie mainly in improving the environment, moderating self-imposed risks and adding to our knowledge of human biology." (Lalonde, op. cit., p.18)

The Lalonde Report is the first major pronouncement by a national government accepting responsibility for promoting the health of its population (see: Evans, 1982, p.326).[6]

Thirdly, the Lalonde Report represents a landmark in the analysis of public policy in the health field. In fact, it throws light on the major categories of health policy in reducing the burden of ill-health. The document takes up the debate on which category of health policy would be more effective for the future (see: Robertson, 1983a).

As can be deduced from what has been said so far, the debate is around the relative value of health care to improve the health of citizens who are ill versus the modification of public and personal measures that affect the individual's environment and lifestyle and may prevent the development of ill-health.

In order to clarify this debate the Lalonde Report

proposes a conceptual framework for health care: the "Health Field Concept" [HFC]. The document claims that the HFC is both a workable basis for the development of health services in any country, and a conceptual framework within which health problems can be approached (see also: McEwan, 1978; Robertson, op. cit.).

4.2.1 Setting Health Priorities in Canada: the Use of HFC

The Lalonde Report claims that the HFC should be used as an analytical tool in dealing with health problems. According to the document, the rationale of the HFC arises from the need to use an agreed conceptual framework which could be

> "... both intellectually acceptable and sufficiently simple to permit a quick location, in the pattern, of almost any idea, problem or activity related to health." (Lalonde, op. cit., p.31)

By using the HFC the health field can be broken up into 4 broad elements: (i) Human Biology; (ii) Environment; (iii) Lifestyle; and (iv) Health Care Organization.

Human Biology: defined as all that relates to the biological make-up of man. This element includes the genetic inheritance of the individual, the process of aging and the many complex internal systems in the body.

Environment: defined as the influences on health which are external to the human body and over which the individual has little or no control.

Lifestyle: defined as all the individual's decisions which affect his health and over which the individual more or less does have control.

Health Care Organization: consists of the quality, quantity, arrangements, nature and relationships of people and resources in the provision of health care.

It is important to note that the Lalonde Report states that:

> "... until now most of the society's efforts to improve health, and the bulk of direct health expenditures, have focused on the health care organization. Yet, when we identify the present main causes of sickness and death in Canada, we find that they are rooted in the other three elements of the concept: human biology, environment and lifestyle." (Lalonde, op. cit., p.32)

The Lalonde Report, in fact, re-analysed Canadian data for sickness and death in order to identify better the major causes of premature death and consequently to assess priorities. Thus, calculations were made of the potential years of life lost [PYLL] by each cause, measured against a life expectancy of 70, and eliminating causes of infant mortality [7] (see also: Romeder and McWhinnie, 1973; 1977). According to this definition, the five main causes of early death contributing to the PYLL in Canada in 1971 were as follows:

Tab. 4.7 - Potential Years of Life Lost (1-70) in Canada in 1971

CAUSE	PYLL
Motor Vehicle Accidents	213,000
Ischaemic Heart Diseases	193,000
All Other Accidents	179,000
Respiratory Diseases and Lung Cancer	140,000
Suicide	69,000

Source: Lalonde (1974)

From the data it may be inferred that self-imposed risks and the environment are the principal underlying factors in each of the five major causes of death between age 1 and 70. The Lalonde Report points out that:

> "... unless the environment is changed and the self-imposed risks are reduced, the death rate will not be significantly improved." (Lalonde, op. cit., p.15).

To sum up, the main points raised in the Lalonde Report regarding the HFC are:

1. Further improvements in the health of Canadians will depend mainly on improving the quality of the environment and moderating self-imposed risks. The term "self-imposed risks" covers such activities as sedentary living, smoking, over-eating, driving while under the influence of alcohol, failure to wear seat-belts, drug abuse, and so forth, for which the individual must accept some responsibility and which he should try to change.[8]

2. The HFC provides a comprehensive framework for the exploration of health problems, insofar as they can be traced to one or other of the four elements of the HFC (or to a combination of these elements). Lalonde's document points out that this comprehensiveness is important because:

> "... it ensures that all aspects of health will be given due consideration and that all who contribute to health, individually and collectively, patient, physician, scientist and government, are aware of their roles and their influence on the level of health." (Lalonde, op. cit., p.33)

3. The notion of HFC permits one to analyse the relative significance of each of the four elements, as well as the interactions between them, as causal factors in illness and death. According to the report, this analysis permits planners of preventive programmes to focus their attention on the most important contributing factors in premature death and illness.

> "For example, the underlying causes of death from traffic accidents can be found to be due mainly to risks taken by individuals, with lesser importance given to the design of cars and roads, and to the availability of emergency treatment; human biology has little or no significance in this area. In order of importance, therefore, LIFESTYLE, ENVIRONMENT and HEALTH CARE ORGANIZATION contribute to traffic deaths in the proportions of something like 75, 20 and 5 per cent respectively". (Lalonde, op. cit., p.33)

4. Another feature of the HFC is that it permits a further sub-division of factors. With traffic deaths, for example, in the lifestyle category, the risk taken by individuals can be classified into sub-categories such as drunken driving, failure to wear seat-belts and speeding.

In conclusion, the HFC provides therefore a "new perspective" on health,

> "... a perspective which frees creative minds for the recognition and exploration of hitherto neglected fields. The importance on their own health of the behaviour and habits of individual Canadians is an example of the kind of conclusion that is obtainable by using the Health Field Concept as an analytical tool." (Lalonde, op. cit., p.33)

In the Lalonde Report the HFC leads to five broad categories of actions, each of these categories itself containing a number of more specific types. These categories are (see: Lalonde, op.cit., p.66):

A Health Promotion Strategy, which comprises a set of 23 more specific strategies aimed at informing, influencing and assisting both individuals and organizations so that they will accept more responsibility and be more active in matters affecting mental and physical health. Among the 23 specific strategies there are educational programmes on nutrition; educational campaigns to increase awarness of the gravity and underlying causes of traffic accidents,abuse of alcohol, drugs, tobacco; educational campaigns to promote a more widespread understanding of the underlying causes of coronary-artery disease; programmes for promoting physical activity; on-the-job exercise programmes with employers and trade unions; the development of a home fitness test to enable Canadians to evaluate their fitness level.

A Regulatory Strategy, which is aimed at using federal regulatory power to reduce hazards to mental and physical health, and at encouraging and assisting provinces to use their regulatory powers to the same end. The 8 specific strategies proposed include regulations for improving the nutritional content of food; laws against driving while impaired by alcohol; assistance to the provinces in promoting legislation making compulsory the wearing of seat-belts in motor vehicles; increased control over hazards to life and health from air, water, noise, food, soil pollution, communicable diseases, radiation, etc.

A Research Strategy, designed to help discover and apply knowledge needed to solve mental and physical problems. Among the 15 specific strategies proposed there are the establishment of a National Drug Abuse Institute; support for more research on the causes and treatments of mental illness, coronary-artery diseases; the implementation of a regular National Health Survey to determine the prevalance and nature of acute and chronic mental and physical illness, to permit an assessment of the health status and needs of Canadians, etc.

A Health Care Efficiency Strategy, the objective of which is to help the provinces to reorganize the health care system so that the three elements of cost, accessibility and effectiveness are balanced in the interests of Canadians. The 20 suggested strategies comprise examination of methods of financing health care in such a way as to provide incentives for providing an efficient delivery of effective care; strengthening industrial and emergency health services, including the training of personnel; programmes for increasing the skills of professions dealing with mental illness; identification, treatment and follow-up of Canadians suffering from a high serum cholesterol level and high blood pressure; work with genetics counsellors in improving the use and availability of genetic services ; etc.

A Goal-Setting Strategy, which comprises 7 proposed strategies with the purpose of setting specific targets for raising the level of the mental and physical health of the population and improving the efficiency of the health care system. These goals include specific reductions in the incidence of major mortality and morbidity; the development of specific improvements in the efficiency of the health care delivery system; the setting of standards of care in both mental and physical health care systems; the extension of national standards of nutrition to include definite recommendations on safe levels of intake for hazardous substances occurring naturally in food; and a renewed commitment toward the health goals of the World Health Organization and the Pan American Health Organization.

4.3 Methodological, Political And Ethical Issues Related To The Lalonde Report

Although the Report does not deal with questions of jurisdiction, nevertheless it proposes strategies to reduce health risks in the Canadian population with the guidance provided by the HFC. The Report proposes a radical shift in health priorities with the emphasis on health promotion. It hopes to achieve its goals through the application of knowledge, political will and a concerted effort by all the participants in decisions which affect health (i.e. health professions and institutions, the scientific community, federal, provincial and municipal governments, industry, voluntary associations and the Canadian people as individuals).

However, the potential use of the "New Perspective" in policy-making practice has not been as straightforward as it appeared at the time of its publication. Methodological, political and ethical issues related to preventive and health promotion programmes, such as those proposed in the Lalonde Report, have, in my opinion, been overlooked. Some of the major methodological and political issues will be briefly analysed here. As far as ethical issues are concerned, these are of the same type as those identified in Chapter 8, Section 8.4, and will not therefore be considered here.

4.3.1 Methodological Issues

For the purpose of this Chapter I shall concentrate only on three major issues.

Firstly, it is unlikely that it will be possible to fulfil the goals of the HFC, namely:

(i) to provide a greater understanding of what contributes to sickness and death; and

(ii) to make it easier to identify courses of action that might be taken to improve health.

The most we can expect from the HFC is an organizational framework for structuring a particular health problem. I seriously doubt whether the HFC alone can make it easier to identify courses of action for health programmes in those situations where:

(a) we lack reliable and valid information about the magnitude of health problems; and

(b) we lack theories capable of exploring the nature of the problem.

Many programmes aiming at improving lifestyle (changing unhealthy eating habits, reduction of drinking, smoking, etc.) are characterized by these kinds of uncertainty (see: Chapters 2,8,9 and 10; see also: Ziglio, 1983e).

Secondly, It is not entirely certain (as the Lalonde document implies) that the HFC can always lead to a comprehensive analysis whereby any question can be examined in the light of its four elements. This in fact would imply that we possess the necessary information on:

(a) the gravity of the given health problem;
(b) the availability of effective preventive strategies with measurable results;

(c) the cost involved;
(d) the political and ethical aspects related to the possible solution of that problem.

Unfortunately, the above types of information are far from being easily available for most of the health problems associated with lifesyle.

Thirdly, the HFC is essentially a static, rather than a dynamic, analytical and methodological tool. Although the HFC may be useful in structuring health problems and therefore may contribute to health priority setting, it is not suitable for the examination of disease processes.[9]

4.3.2 Political Issues

Four issues are particularly relevant to the debate on the impact of the Lalonde Report.

Firstly, Lalonde's document concedes that one of the main problems in improving the health of Canadians is that the essential power to do so is widely dispersed among individuals, citizens, governments, health professions and institutions (Lalonde, op. cit.). This fragmentation of power and responsibilities is liable to weaken the process of setting health priorities according to the suggestions provided by the Report (see also the conclusion of Chapter 6).

Secondly, the Lalonde Report does not consider the possible responses of various interested groups to the "New Perspective". In his analysis, Evans (1982) examines the

responses of the major interested groups to Lalonde's document and points out the assumptions and biases that each group brought to bear on the report, resulting in conflicting perspectives on the report which resulted. In analysing the (i) social; (ii) government and (iii) health provider (e.g. medical profession) perspectives, Evans concludes that these are fundamentally in conflict.

> "If prevention 'works', in the sense of improving health status and thereby reducing demands on the overall health care system and thereby lowering overall health costs - a sequence which is by no means automatic - then it is inimical to the economic interests of health care providers. If prevention does not 'work' in the economic sense, either because it is inefficacious or because for a variety of perfectly plausible reasons health status is improved but health care utilization or costs rise, then health care providers' economic and professional needs are met, but the government's are not. Of course, it is conceivable, as is sometimes suggested, that 'successful' preventive programs, whether within or outside the health care system, could simply permit the redeployment of resources within curative care, allowing savings from prevention of one form of problem to be absorbed in more treatment of another. From the 'New Perspective', however, this begs the question. If the payoff to investing new resources in general in the conventional health system is relatively low, then where should the redeployment go? And, for the matter, why redeploy them in health care at all?" (Evans, op. cit., p.340)

Thirdly, the Lalonde Report overestimates "self-responsibility" for health. On this issue the document is rather ambiguous both in its methodological and political approach to health problems and health behaviour. If the model proposed in the report sees health problems as primarily individual in both origin and resolution, then health promotion programmes based on the ideology of self-responsibility are limited because they ignore the

political-economic-social reality in which health behaviour occurs. Various authors have described this ideological focus on self-responsibility as "blaming the victims" and accuse it of being methodologically weak and politically narrow (see: Labonte et al. 1981; Crawford, 1977; Alison, 1982).

On the other hand, if the "New Perspective" does consider social responsibility for health, then it fails to provide a clear statement of health as a social goal, and also fails to tackle economic and commercial vested interests affecting health. Mustard puts it in this way:

> "How many of us can effectively cope with the issues of nutrition and smoking when the zeal of health education programs is counterbalanced by the wiles of the advertiser and the tepid enthusiasm of governments which collect taxes and control advertising." (Mustard, 1977, p.10)

Fourthly, the emphasis on a "soft" persuasion-oriented approach to lifestyle change presents a relatively easy option for government actions and is obviously attractive to individualistic societies in Western developed countries. However, it must be said that the tendency to promote health through approaches focusing mainly on the modification of individual behaviour is common practice even in non-capitalist societies (see: Deber, 1981). To attempt to change individual behaviour through individual persuasion alone is to take a naive atomistic view of the position of the individual in society (see: Robertson, 1983a).

4.4 The Ambiguities of the Lalonde Report

There are three major ambiguities in the Lalonde Report's proposals for the promotion of the health of Canadians. This research shows that these ambiguities persist through the subsequent health promotion activities in Canada, and still exist today (see Chapter 6).

One important contribution of the Lalonde Report is its emphasis on a positive approach to health through the expansion of health activities to all four elements of the HFC. On page 6 of the Report it is stated that:

> "The Government of Canada now intends to give to human biology, the environment and lifestyle as much attention as it has to the financing of the health care organization so that all four avenues to improved health are pursued with equal vigour. Its goal will continue to be not only to add years to our life but life to our years, so that all can enjoy the opportunities offered by increased economic and social justice".

However, in spite of the above quoted good intentions, doubts have been raised (see Sections 4.3.1; 4.3.2) as to whether Canada will fully take the opportunity to be a pioneering country in the practical experimentation of a "new perspective" for health, where priority is given to policies for the prevention of diseases and the promotion of positive health within the community. Apart from the underestimation of the methodological, political and ethical problems already explored, I would add finally that there are three ambiguities at the heart of the Lalonde Report.

The first ambiguity lies in the fact that fulfilling the goal of the new course of Canadian health policy (as quoted above), without curtailing the cost of the element of health care organization is (particularly in a period of economic recession) in conflict with the objective of cost-containment (this ambiguity was also confirmed by interviews with Dr. Hancock; Mr. Labonte; Prof. Hastings; Prof. Deber and Ms Wheatley)[10].

The other two ambiguities can be presented as two ideological overtones in Lalonde's document that are not necessarily congruent:

(i) an emphasis on individualism; and
(ii) a (naive) social engineering approach to health problems.

The following quotations throw light on an ideological overtone of individualism.

> "The view that Canadians have the right to 'choose their own poison' is one that is strongly held" (Lalonde, op. cit. p. 6).

> "It is therefore necessary for Canadians themselves to be concerned with the gravity of environment and behavioural risks before any real progress can be made (ibid. p. 6).

> "The fact that there is some truth in both hypotheses, i.e. that environment affects lifestyle and that some personal habits are addictive, requires a philosophical and moral response rather than a purely intellectual one. This response is, that if we simply give up on individuals whose lifestyles create excessive risks to their health, we will be abandoning a number who could have changed, and will be perpetuating the very environment which influenced them adverely in the first place. In short the deterministic view must be put aside in favour of faith in the power of free will hobbled as this power may be at times by environment and addiction" (ibid., p. 36). (Emphasis added)

Thus, in the interests of fostering individual freedom, the individual is held responsible for the promotion, maintenance or worsening of his own health (see: Robertson, 1983a; Ringen, 1979; Crawford, 1977). Lifestyle change (as implied by the Lalonde Report) represents the "soft underbelly" of health promotion policy (see: Robertson, op. cit.; McEwan, 1978; Mustard, 1977; Ringen, 1979; Milio, 1981a; 1983; Labonte et al. 1981; Alison, 1982). It is to this area that government policies have tended to be directed in Canada, whilst other elements of the health field have been neglected (see Chapter 6.).

Closely related to the emphasis on individualism is the "social engineering" approach to action, proposed in the Lalonde Report (see also: Ringen, 1977a). This can be presented by the following quotation.

> The marketing of social change is a new field which applies the marketing techniques of the business world to getting people to change their behaviour, i.e. eating habits, exercise habits, smoking habits, driving habits, etc. It is argued by some that proficiency in social marketing would inevitably lead goverment into all kinds of undesirable thought control and propaganda. The danger of government proficiency in social marketing is recognized but so are the evident abuses resulting from all other kinds of marketing. If the siren song of coloured television, for example, is creating an indolent and passive use of leisure time, has the government not the duty to counteract its effects by marketing programs aimed at promoting physical recreation? (..) This kind of imbalance extends to the amount of money being spent by the private sector on marketing products and services, some of which if abused, contribute to sickness and death. One must inevitably conclude that society, through government, owes it to itself to develop protective marketing techniques to counteract those abuses" (Lalonde, op. cit., 36).

In the latter quotation we see that in the Lalonde Report there is the recognition that certain economic production, distribution and exchange activities negatively affect the health of Canadians; however, the Report does not propose to alter these activities, at least not directly (see: Ringen, 1977a). The problem of power and of vested interests is ignored. The strategy remains primarily individualistic, being limited for the most part to government programmes in health education (see Chapter 6.). Ultimately, the stance of such an approach to health policy is politically naive.

It is within these ambiguities that health promotion has been conceived in the Canadian context. As will be shown in Chapter 6, health promotion strategies in Canada remain primarily individualistic, being limited for the most part to government programmes in health education.

NOTES

[1] The Act assigned all matters of national concern to the federal government which had the broadest tax base in the health field, the federal government being given jurisdiction over quarantine, marine hospitals and health services for native peoples and the armed forces. The provinces were given authorities for local concerns such as maintenance and management of hospitals, asylums, charities and eleemosynary institutions which were, at that time, thought unlikely to be costly (see: Vayda and Deber, 1984; Deber and Vayda, 1982; Taylor, 1978).

[2] According to Simeon (1972) the interactions between the federal and provincial governments can be described as "federal-provincial" diplomacy, much like the relationships between the heads of sovereign states (see also: Vayda and Deber, op. cit., pp. 191-192).

[3] The 50 per cent federal share was distributed as follows: each province was paid 25 per cent of the per capita costs it incurred for hospital in-patient services plus 25 per cent of the national average per capita cost; this sum was then multiplied by the province's population. For medical insurance, each province received 50 per cent of the average national per capita medical care expenditure multiplied by its population. As a result, the wealthier provinces that spent more would receive less than 50 per cent of their cost.
As Deber and Vayda show (1982; 1984) the differentials were especially apparent for medical care cost sharing, which was entirely based on national rates. For example, in 1973-74, Ontario received 49.4 per cent of its hospital costs and 44.8 per cent of its medical care costs from federal contributions; while the poor province of Newfoundland received 57.6 per cent of its hospital and 81.5 per cent of its medical care costs from the federal government (see also: Soderstrom, 1978; Andreopoulos, 1975).

[4] Physicians are paid fee-for-service on the basis of provincially negotiated fee schedules. Although the details vary from province to province, all physicians have the choice of "opting in" or "opting out" of the provincial plan.

> "For opted in services, the physician accepts the negotiated fee as full payment and is paid directly by the provincial government; the patient pays nothing (..). In all provinces except Quebec, an opted out physician may still bill the patient above the provincial fee schedule ('extra billing'). The plan still pays its portion, either to the patient or to the physician and the patient pays the remainder, if any, of the fee. Opting in is attractive to physicians, given a reasonable

> fee schedule, since it eliminates bad debts and reduces administrative costs." (Vayda and Deber, 1984, p.193)

Presently (1983), the number of opted out physicians varies from less than 1 per cent in Quebec (where the plan does not reimburse either the patient or the physician when the physician is opted out) to about 15 per cent in Ontario (see: MacPherson, 1983; Vayda and Deber, op. cit.; Deber and Vayda, 1982; see also Badgely and Smith, 1979).

[5] According to Canada's National Provincial Health Program for the 1980's (The Hon. E.M. Hall Special Commissioner, 1980, p.10)

> "Largely owing to the decisions to calculate the cash grant on the three-year 'moving average' based on Gross National Product in 1973-74, 1974-75 and 1975-76, years of high inflation, the base grant was higher than anticipated. In addition because of the slowdown in the economy following 1975-76, the tax points transfer yielded lower revenues than forecast and the cash grant was increased commensurately."

[6] It must be said, however, that the underlying ideas in the Lalonde Report are not completely new. The works of McKeown (1965; 1971; 1976), Cochrane (1972), Powles (1973; 1977), Fuchs (1974) and Illich (1975; 1977) have also raised questions (although from very different perspectives) about the social payoff to further expansion of hospital-based techniques and facilities (see: Chapter 1).

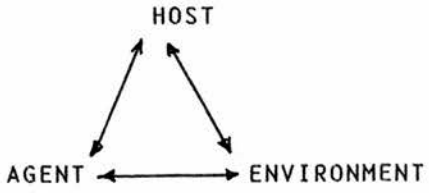
[7] The methodological reasons for excluding infant deaths are mainly related to the fact that most causes of infant mortality are strongly associated with this early period of life (see: Romeder and McWinnie, 1973; 1977).

[8] In reviewing the Lalonde Report Gellman and his colleagues point out that:

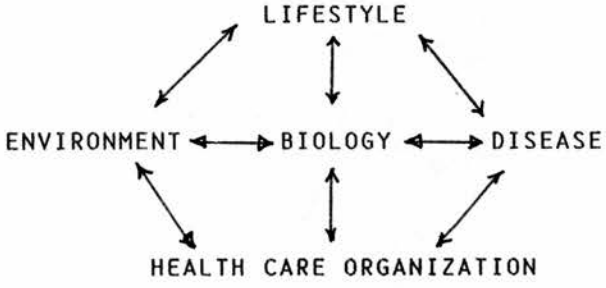
> "There is little doubt that risks imposed upon individuals by themselves and by their environment are the most important causes of these conditions and unless these risks are reduced the number of premature and preventable deaths from these conditions will remain high." (Gellman et al., 1977, p.267)

[9] Morgan (1977) attempts to integrate the traditional epidemiological model of disease (Fig. 4.C) and the HFC into a more useful paradigm (Fig. 4.D).

- Fig. 4.C -



- Fig. 4.D -



> "In this model, we can see that environment acts not directly on disease, but through intermediaries of lifestyle, biology, and health care organization. (..). Only in rare instances would the environment act directly, without an intermediary, upon disease, and vice versa. If the model has any utility, it may be in attempting to decide, for any particular disease, the points of optimal intervention." (Morgan, op. cit., p.29)

The model proposed by Morgan can surely be used in methods of disease control, whether based on environmental modification, immunization or early detection. However, it seems to me that its use is limited only to those diseases where aetiology is entirely known. Again this is not the case for most "lifestyle-related" diseases. Here, even Morgan's model would not provide specific indicators for intervention (see: Ziglio, 1984).

[10] Mr. R. Labonte, Health Education Consultant, British Columbia Min. of Health, Vancouver, interviewed on June the 1st, 1983 (Mr. R. Labonte is with the Dept. of Public Health of the City of Toronto since the summer 1983).
Ms. S. Wheatley, former President of the Ontario Nurses Association, interviewed in Toronto on May the 25th, 1983.
Prof. J. Hastings and Prof. R. Deber, Dept. of Health Administration, University of Toronto, interviewed in Toronto in April and May, 1983.
Dr. T. Hancock, Dept. of Public Health, City of Toronto, interviewed in June, 1983.

CHAPTER 5.: THE DEVELOPMENT OF HEALTH POLICY IN NORWAY

Norway is the most sparsely populated country in Europe, with only 13 people per KmSq (1983 figures). The physical characteristics of the country, and its numerous communities living in remote areas, have influenced the organization and development of health policy since its very inception. Work has already been carried out in analysing how the combination of climate, geography, distribution of population, history and culture has shaped the system of health care in Norway (see in particular the study of Ringen, 1977a, Chapters 8, 9, 10, and 11; see also: Norwegian Directorate of Health, 1980). In the next sections I shall outline the major events in the development of Norwegian health policy, to delineate the health policy context in which the NNFP appeared in the mid-70's.

This Chapter attempts to demonstrate that, although in theory Norwegian health authorities agree that future improvement in health will depend on preventive programmes, the efforts to shift health expenditure away from the conventional health sector have been so far (as in Canada) only tentative. Nevertheless, Norway has been developing, since the mid-70's, a "National Nutrition and Food Policy", largely independent of its health policies, whose aims and procedures constitute an interesting structural model for health promotion strategy.

5.1 Background to Health Policy in Norway: The 1860 Public Health Act

The origins of health policy and the present health care system are a compromise between central and local initiatives. The emphasis on locally-based health measures is reflected in the enactment of the Public Health Act [PHA] of 16 May 1860. This Act, which is still in force, made local government the basis of health services, and is still considered to be the most important piece of health legislation ever passed in Norway.

The 1860 PHA is divided into two sections, one containing a general proposal for the organization of the health system, and the other for the prevention of endemic and infectious diseases (see: Ringen, 1977a; Evang, 1960). Under this Act, responsibility for all matters relating to health lies with the Local Health Board, elected by the municipal council (at present there are some 454 municipalities)(see also Fig. 5.A). The chairman of this board is the local (normally state-appointed) public health officer, who is usually a general practitioner.[1] The Local Health Board [2] operates independently from other local government bodies. Appeals against its decisions can be made to the Minister of Social Affairs (there is no Minister of Health in Norway) or the King (see: Norway Information, 1978).

It has been pointed out that the strength of the 1860 PHA, and the reason why it has survived so long, lies in its

general flexibility (see: Ringen, op. cit., Chapters 8 and 9). In fact, the health boards were given a very loose mandate; but the Act also ensured some degree of national unity and continuity through the use of centrally-determined health standards and guidelines.[3]

Karl Evang who, as Director General of Health from 1939 to 1971, guided the development of Norway's health system within the boundaries imposed by the 1860 PHA described it as follows:

> "The law of 1860 gave political authorities in each commune responsibility for all matters of health in their areas by providing that the Local Boards of Health should be elected by and at least partly from the communal councils. The chairman of each board, however, should be a medical expert (..). This was a brilliant inspiration, to make the district doctor the servant and the leader of local community in health matters, at the same time that he is a representative of the national government, appointed independently of local pressures. His alliance with the medical leadership of the entire nation helps to counteract the disparity which might otherwise result from such strong decentralization. (..). The communal Boards of health have been and are the most important factor in achieving the relatively high sanitary and hygienic level of Norway, even in the poorest districts of the country. (..). Thus the basic postulate of the health law of 1860 has been carried out: that health enterprises must be adapted to the economic and cultural conditions of the local community, and that they can be put into effective execution only if people understand and support them" (Evang, 1960, pp. 129-131-132).

Since 1860, a long series of special health laws has been introduced serving both as a guide for the local health boards and as ways of directing the trend of health policy in Norway. As far as the organization of the health system is concerned, a number of parliamentary decisions in 1960,

1969, and 1973, have aimed at decentralizing important aspects of health services to the county level.[4] Thus, nowadays the health system in Norway has three levels: Municipal, County, and State (Directorate of Health within the Ministry of Social Affairs).

At central level, health matters have been organized within the Ministry of Social Affairs since May 1945. Under this arrangement (see Fig. 5.A) the Director General of Health Services is directly responsible to the Minister of Social Affairs with regard to any technical, medical, legal, administrative or economic matters (see: Norway Information, 1978).

To sum up, the Norwegian health system is based on two principles. One is decentralization, and the other is coordination of public control and medical expertise in the local and county health boards. According to Hjort and Skoie (1973) these two principles suggest that for Norwegians health is too important to be left to doctors, but also too complex to be left entirely to elected representatives.

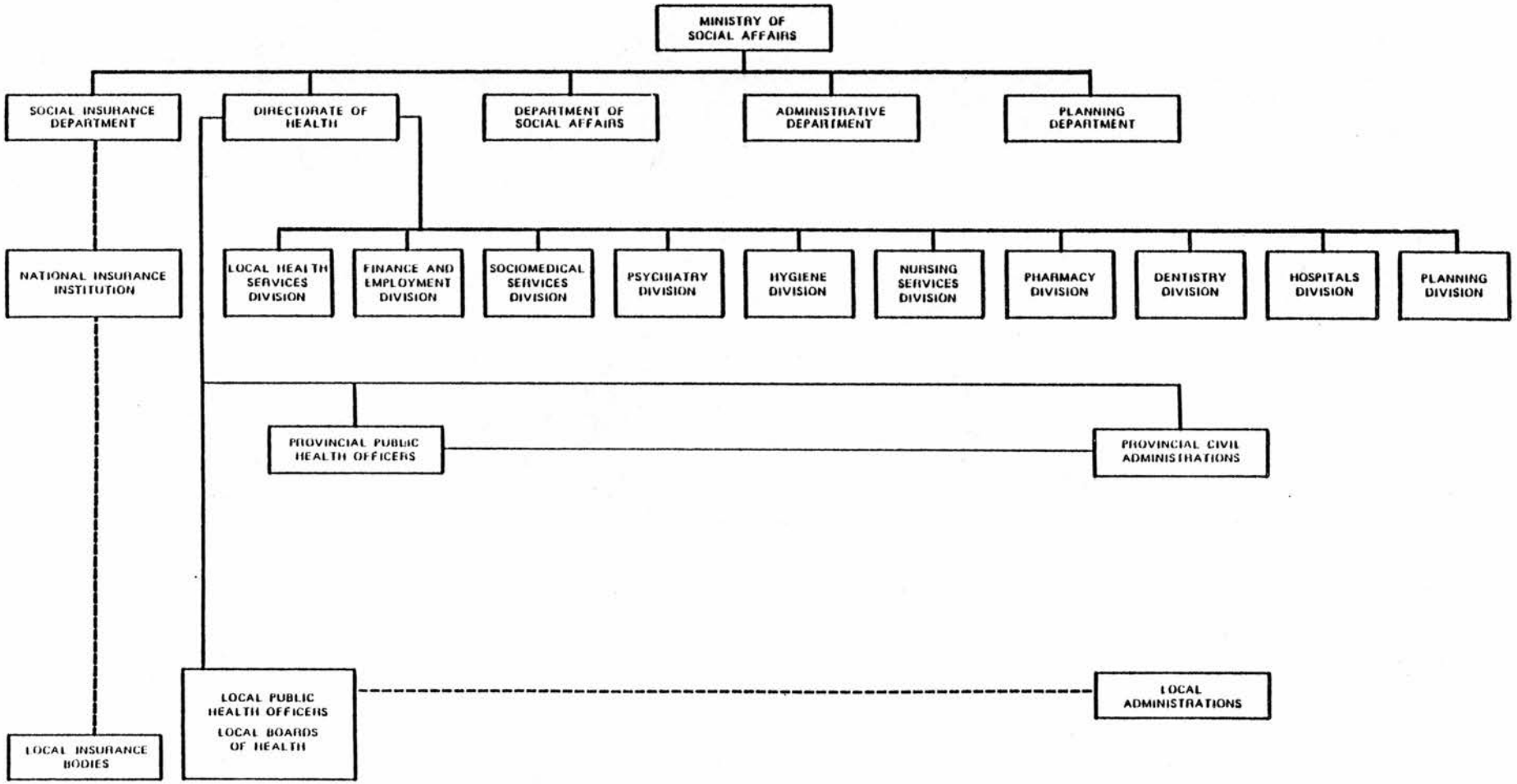


Fig. 5.A - The Organisation of the Norwegian Health Service

Source: W.H.O. (1981, Vol. 2, "Health Services in Europe")

5.2 The Financing Mechanism of Norwegian Health Policy

Obligatory pre-paid medical care (health insurance) was introduced in Norway in 1911 for wage-earners below a certain wage-limit and their families. The implementation of the Sickness Insurance Act of 1911 covered 20 per cent of the population and about 40 per cent of wage-earners (see: Ringen, 1977a; Norway Information 1978).[5]

By 1956 the entire population was included in the insurance scheme on a compulsory basis. According to Ringen (op. cit., pp. 356-357), there were two phases in this expansion of coverage and facilities. First, from 1911 to 1920 there was an increase in the provision of public primary health care services, reflected in the growth of the district physicians' network. Second, from 1920 (and particularly in the period following World War II) the emphasis shifted to an expansion of hospital services (see: also Section 5.3).[6]

In 1967 the National Insurance was established as an integrated and coordinated social insurance system, which covers medical care and pensions.

Many authors have pointed out that expenses have increased very rapidly during the 60's and 70's (Hjort and Skoie, op. cit; Grund, 1979; Norwegian Directorate of Health, 1980). Hjort and Skoie claim that:

> "Between 1961 and 1971 public expenses for health and welfare increased from 10.9 to 17.4 per cent of the GNP, and the annual average increase in public expenses for health and welfare went up from 13 per cent for 1961-66 to 22 per cent for 1971-72. Two items are

> particularly expensive: hospitals and pensions. In 1971 the total cost of health and welfare was 2640 Mil. dollars (taking 1 dollar=6.59 N.Kr.). About 60 per cent was paid by the National Health Insurance, the rest by other public sources (e.g. the counties paid 25 per cent of the hospital bill)".[7]

The Hospital Act of 1970 has contributed to the escalating cost of health expenditure.[8] The Act deals with the development and management of medical institutions. It introduced regional decentralization and the county became responsible for the planning, building and management of all medical institutions, and was made responsible for covering therapy and nursing requirements. County health plans are to be approved by the central health authorities. Under the Act, each county has to present a complete plan for the development and coordination of medical institutions. All the institutions which are part of an approved plan will benefit from the financial arrangements. Final approval rests solely with the government, acting on advice from the central health authorities (see: Norway Information, 1978).

Under the financial provision of the Act, approved plans have 75 per cent of their operating costs covered by the government. The remaining 25 per cent of operating costs have to be covered by the owner of the hospitals (normally the county). Private hospitals are only covered by these financial regulations when integrated into the county plan, and in this case the county pays the remaining 25 per cent (see: Norway Information, op. cit., pp. 8-9).

The high reimbursement rate undoubtedly explains the

growth in expenditure and, although (at least on paper) national policy was to favour primary care rather than institutional care, the result was that in 1978 Norway spent about 76 per cent of the total public expenditure for health on institutions, as against 72 per cent in 1972 (see: Norwegian Directorate of Health, 1980, Tab.1: "Distribution of Expenditure", p.16).

The 1970 Hospital Act did not reverse the trend in the decrease in general practitioners and doctors working in primary care (counterbalanced by the increasing number of doctors working in hospitals and specialization). This trend has continued to make headway through the 1950's, 60's and 70's (see: Ringen, 1977a, Chapter 11; Hjort et al., 1973; Hofoss et al., 1981). It has also been argued that the arrangements described above and the cost of health care have not had any significant influence on the regional differences in the need for health services (see: Norwegian Directorate of Health, 1980). The problems of cost escalation, inequalities in the regional distribution of health services and imbalances amongst the social classes have been recently addressed in an attempt to link information on the distribution of health services with information on the distribution of needs (see: Norwegian Directorate of Health, op. cit.; Grund, 1982).[9]

In 1980 a new financing system was introduced in Norway. The support for the running costs of hospitals and other health institutions has, since 1 January 1980, been transferred as block grants to the counties according to

need criteria, rather than according to an approved budget (see: Grund, 1979; Norwegian Directorate of Health, op. cit.), as in Britain (see: SHHD,1977; DHSS, 1977a).

5.3 Norwegian Health Policy at a Crossroads

From Sections 5.1 and 5.2 it can be deduced that health policy in Norway in the post-war period has mainly been based on the development of institutionalized services. As in Canada, and in the majority of Western countries, the development of health policy in Norway has swung away from general and less expensive services, towards the more costly specialized ones. The work of Ringen (1977a, chapter 11, pp.373-375 and 378-381) throws light on the period preceding the formulation of the NNFP, and shows that as health policy has developed medical care expenditure has by far exceeded the growth of the GNP, as shown by Tab. 5.1 (see: Ringen, 1977a, Chapter 11, Tab. 11.9, p.375).

Tab. 5.1 Trends in Medical Care and GNP in Norway: 1960-1970 (Million Kroners, Running Prices)

	1960	1970	1974
Gross National Product	36,101	79,694	128,934
Medical Care as a Percentage of GNP	3.6	4.7	5.7
Average Annual Rate (per cent) of Growth: Medical Care/GNP	12.55 7.40	14.60 12.40	17.52 15.64

SOURCE: Central Bureau of Statistics of Norway - Statistisk Arbok (Statistical Yearbook of Norway) (1976, Tab. 82); Ringen (1977a, Tab. 11.9

Health policy in Norway has therefore been affected by cost-escalation. Until the mid 70's Norway did not take any

special measures to slow down the escalation, which can partly be explained by Norways's strong economic situation in the North-sea oil era. In fact, in the last two decades Norway has had one of the strongest and most stable ecomomies of all Western developed countries (see: OECD, 1976; 1980).

In 1976, the OECD economic survey gave a favourable report in Norway's economic performance.[10] In 1981, the OECD economic survey revealed a less enthusiastic picture (although by far better than that of most developed countries):

> "Norway's economic performance has been mixed over the last few years. In marked contrast to developments in most Member countries, unemployment has remained low, barely exceeding 1 per cent of the labour force, and the current external balance has improved remarkably since 1978, mainly because of the rapid growth of oil and gas exports. But these developments have gone hand in hand with an unsatisfactory export performance in traditional merchandise trade, slow growth of industrial output and productivity, and a marked rise in prices and wages upon the termination of the 1978-79 price-income freeze. As a result the country is now faced with important problems - most of them of a structural character - with, in particular, a smoother absorption of oil revenues standing out as a major challenge for policy makers" (OECD, 1981, p.5).[11]

It was largely due to the activity in the oil sector that growth significantly exceeded the OECD average. In the late 70's and early 80's a curb on the growth of public expenditure and greater flexibility in the labour market were suggested as policy measures to achieve a lasting improvement in the price and cost situation (see: OECD, 1981). The solution, however does not lie in simply curbing

public expenditure 'per se'. As far as health policy is concerned, the major solution lies in identifying a shift in health policy which can guarantee a high level of both effectiveness and efficiency. This goal could be achieved through either a better management of the present health system, or an emphasis on prevention and health promotion policy, or through a proper mix of these two approaches. As we have seen earlier, approaches based on managerialism were introduced in the 70's and early 80's. The 1970 Hospital Act and the 1980 new financing mechanism based on need criteria in order to determine grants to the counties for the running costs of hospitals (see: Section 5.2), are part of an attempt to introduce better management into the system.[12]

To sum up, the main problems that Norwegian policy-makers have to face in 1980's stem from the way in which health policy has been oriented throughout the 60's and 70's. They have been analysed in an official publication edited by the Director of Health Planning of the Health Directorate titled: "Helseplan for 1980-Ara" (Health Plan for the 1980's) (Grund, 1982) and can be summarized as follows:

1. The national health service has difficulties in adjusting to modern problems. There is the need for a better distribution of doctors and other health personnel.

2. There is a need for improving primary medical care and for better measures for coping with the problems of the chronically ill and the old.

3. If the health services are to be properly adapted to health problems, they should no longer be identified with cure and nursing alone, a new emphasis on prevention is necessary. Hisorically, prevention in Norway has largely been based on sanitation and immunization measures. The need now is to direct prevention towards the medical and the social problems of the modern welfare state as well.

4. Medical education must be modified to train doctors for modern society. It is necessary to understand that the biomedical model alone could not provide an appropriate solution to the modern pattern of ill-health.[13]

5. Research should also give priority to the pressing medical social problems of today's society (see also: Directorate of Health, 1980; Hjort and Skoie, 1973; Royal Norwegian Min. of Social Affairs [RNMSA], Report, 75, 1977-78).

The "Health Plan for the 80's" as well as the document "Health for All by the Year 2000" emphasize the importance of shifting priorities towards prevention and health promotion. In the next Section I shall demonstrate that this new trend in Norwegian health policy can be traced back to the mid-70's, when the NNFP was formulated (see also Chapter 7).

5.4 New Perspectives in Norwegian Health Policy?

The "Health Plan for the 1980's" (Grund, 1982) contains a re-orientation of health policy towards prevention as an alternative to the present emphasis on curative and rehabilitative services which characterized recent developments of Norwegian health policy. However, the origin of an interest in prevention and health promotion dates back to the mid 70's.

In 1975 a White Paper issued by the Ministry of Social Affairs (RNMSA, Report 9, 1975-76, p.21) argues that:

> "Most of the resources in the health and social sectors have been used to treat and rehabilitate problems after their occurence, in spite of the fact that it is common to assert that it is better to prevent the incidence of social problems than to cure them after the fact. There are not only humane and social circumstances which suggest that preventive efforts must be strengthened, but also limitations to the amount of resources which can be transferred to this sector. It is doubtful if we in the years to come can continue the present rate of development of treatment and chronic care services."

However, the 1975 White Paper was not very clear about what the prevention is to consist of. The White Paper notes that there is a reciprocal relationship between the growth of the economy and the growth of health and social services. It claims that such a relationship represents a "vicious circle". Ringen (1979, p.36) explains that in this vicious circle:

> "Economic growth requires higher rates of productivity and greater mobility, which places greater pressure and stress on the individual, and this in turn leads to higher rates of use of health and social services. To finance the larger expenditures that this

> higher use implies, more economic growth and higher rates of productivity are required".

Thus since the mid 70's there has been a political debate in Norway about the extent to which health and social services can be expanded, independent of the relative strength of the Norwegian economy in such a period (see previous section). The 1975 White Paper implies that economic policy should not continue to be concerned with growth rather than well-being under the assumption that growth and well-being are equated (see: Ringen, 1977a). According to the 1975 White Paper, the prime aim would be to avoid (or at least reduce) the undesirable effects on health and welfare of social development (RNMSA, op. cit.; see also RNMSA, Report No. 75, 1977-78). The concepts of "health" and "welfare" nevertheless remain elusive.

The 1975 White Paper has not succeeded in re-orienting health policy in Norway. On the contrary, the traditional health care system has subsequently expanded still further (see: Grund, 1979; 1982, Chapters 4 and 5; Norwegian Health Directorate, 1980).

The difficulty of redirecting health expenditure towards preventive measures assumes a dramatic proportion in the light of the national health budget. Prof. Sudby (1976, p. 300; see also Ringen, 1977a, pp. 381-382; 1979, p. 36) puts it in this way:

> The state expenses for these purposes (health and social services) are stipulated to be 23 billion Kroners in 1975, (..). However, of these 23 billion, 14.5 billion is used as cash payments to individuals, and about 7.4 billion is spent on treatment and chronic care. If one reads the national budget, one will find only 125 million kroners in the health budget

> and 15 million kroners in the social services budget targetted for education and prevention. This means that officially we use 0.6 per cent of the total budget on prevention. But if we look more closely at these figures, we are even further disilussioned. Half of the 125 million goes to the public health service and more than 7 million goes to the family services bureau for implementation of the abortion law, i.e., purposes that can hardly be considered as prevention. Other monies go to special forms of prevention, such as public health education, protection against infectious diseases, improving nutritional and smoking habits and towards drug abuse. (..). For general prevention programmes, directed at the entire population, the budget allocations are in reality extremely small; (..). Occupational and industrial health is outside the realm of the state. As we all know, also in these areas, which are principally preventive, the emphasis on health check-ups is strong, but without preventive effects. We can therefore say that no more than 0.2 to 0.3 percent of the total budgets are allocated for prevention, and of this only parts are used for well-defined preventive activities." (Emphasis added)

Nevertheless, there has been one noteworthy development since 1975. In 1975, another government White Paper, presented by the Royal Norwegian Ministry of Agriculture [RNMA], proposed a national nutrition and food policy [NNFP]. It is striking that it was left to the leaders of agriculture policy to initiate the most significant health promotion policy in Norway (see: Winikoff, 1977; Ringen, 1977b; 1979; 1983; Milio, 1981b). This innovative and ambitious policy proposes to harmonize the nutritional needs of the population and the economic needs of agricultural producers and also coordinate several other objectives, including increased food security and regional development (see: Chapter 7).

5.5 Conclusion

During the post-World War II period, the emphasis in Norwegian health policy has (as in Canada) been on planning the distribution of personal health services. Questions of equity, accessibility, availability and continuity in the delivery of individually-based health services delimited the concern of health policy, at least until the mid 70's. As in most Western countries, attempts to contain the cost escalation of the health system and to improve the health status of the population, have been sought in the last ten years.

In common with their Canadian counterparts, Norwegian health planners seem to have recently reached the conclusion that future improvements in health will depend on preventive programmes, rather than on an increase in expenditure on, or the development of services in, the conventional health sector. And as in the case of Canada, the issue tends to be strongly recommended in theory, but lacking in practical implementation in the form of a set of non hospital-based health strategies (see: Robertson, 1983a).

Norway has, however, been developing a nutrition and food policy, independent of its health policies, whose aims, methods and procedures might well serve as a model for a structural approach to health promotion in developed countries (see: Robertson, 1985; see also: Winikoff, 1977; Milio, 1981b; Ziglio, 1983d).

NOTES

[1] The central government pays part of the salary for this administrative work. The public health officer practices his work as a doctor on a fee-for-service basis, to earn the rest of his income (see: Hjort and Skoie, 1973; see also WHO, 1981, Vol. 2: "Norway", pp.141-146).

[2] In cities and more densely populated areas local health departments, under the authority of the health board, have been set up (see: Norway Information, 1978).

[3] By way of a summary Ringen (1977a, pp. 312-313) maintains that:

> "The Act created a national network of local health boards having the characteristics of mini-legislatures with a very high degree of autonomy. The Act was sufficiently general to allow for changes over time, and sufficiently flexible to allow for regional disparities and differing local needs."

[4] In each of the 19 counties there is now a full-time public health officer appointed by the king. His salary is made up of equal contributions from the state and the county. The county public health officer represents the Director General of Health and supervises the health services within the county, including the local public health officers, private practitioners, dentists, midwives, and other health personnel. His staff varies with the size of the county. All counites have at least two assistent public health officers (one dealing with preventive and administrative medicine, the other with the socio-medical problems), a public health nurse, and a small number of social workers. A number of counties have also specialists in psychiatry. The average population of a Norwegian county is 200,000, varying from 76,000 in Finnmark (the most north-easterly county) to 487,000 in Oslo.

[5] The cost of running the scheme was covered by the health insurance premium paid by the member of (6/10), his employer (1/10), his municipality (2/10) and the national government (1/10) (see: Norway Information (1978, p.6). There was also an opportunity for voluntary membership, and as the premium was low, membership gradually increased. One reason for low premius was that the cost of istitutional treatment of chronic diseases: psycosis, tubercolosis, mental retardation and epilepsy was offered as a public service: 4/10 of the cost being met by the government and 6/10 by the home county of the patient (see: Norway Information, 1978, pp. 6-7).
Evang (1955, p.53) notes that the 1911 Health Insurance Act formed the basis for the rapid expansion of the curative medicine in Norway.

[6] Under the Universal National Health Insurance Scheme the cost is still shared between the member, his employer (if any), his municipality and the government, but the member's premium is now paid as an inclusive part of his

taxes. The scheme is shared by four parties: employers (47 per cent), members (33 per cent), municipalities and the state (10 per cent each) (see: Hjort and Skoie, 1973). Under the scheme there is a free choice of doctors and hospitals; the patient may change his doctor as often he wishes, and there is no limitation on the number of patients treated by doctors. Moreover, all doctors practising outside hospitals are paid on a fee-for-service basis, according to two scales of standard fees: one scale for general practitioners and one for specialists (Norway Information, 1978, pp.7-8). General practitioners and specialists who do not form part of the public health services are free to practice where they wish (see also: WHO, 1981, Vol.2: "Norway", pp.141-146).

[7] The benefits include: (1) free hospital care for all as long as care is required; (2) Maternal benefits, covering all costs associated with chilbirth and confinement in hospital or in maternity homes; (3) Home nursing; (4) Consultation and treatments by general practitioner and, if necessary by a specialist. (The programme does not pay the full cost of such care and on average, the patient pays approximately 20 per cent of the cost of primary care himself) (Norway Information, 1978, p. 7); (5) Physiotherapy prescribed by a doctor; (6) Cost of transport of the patient to and from the doctor's consulting room or hospital, or of the doctor to the patient; (7) Convalescence costs within specified limits; (8) Part of the cost of necessary drugs used outside the hospital, based on a principle of increased percentage of coverage with increasing cost; (9) Funeral allowances; (10) Cash allowances for sickness, lying-in periods and family maintenance when the breadwinner of the family is ill (Norway Information, op. cit., pp. 6-7).

[8] See: Central Bureau of Statistics of Norway, 1976, Tab.46: "Health Institutions by type of Institutions: 1975-78; 1982, Tab.66: "Operating Expenditure by Category for Various Types of Health Institutions: 1979"; see also: Yearbook of Nordic Statistics, 1976, Vol.15, Tab.195; 1980, Vol.19, Tab.190; 1983, Vol.22, Tab.200. Trends for the early 80's can be seen in Central Bureau of Statistics of Norway, 1983, Tab.67: "Operating Expenditure by Category for Various Types of Health Institutions: 1980; 1984, Tab.63: ibid.: 1981).

[9] It has been pointed out that in Norway:

> "This is quite difficult because of the simple reasons that "need" is not given operational content - but recent research illustrates that regional differences in supply indicators are larger than regional differences in need indicators (mortality, morbidity, income, employment, divorces, etc.)." (Norwegian Directorate of Health, 1980)

[10] The 1976 OECD economic survey reported that in Norway:

> "Expectations concerning domestic economic growth at the beginning of 1975 were remarkably strong, contrasting sharply with the fears of recession prevailing in most

> other Member [of the OECD] countries. The boom conditions continuing throughout 1974 and the expansionary policy stance were expected to ensure a high level of employment during 1975. At the same time, it was thought likely that rapidly rising oil exports and lower import requirements of the oil sector would keep the cyclical rise of the current external deficit to a manageable size." (OECD, 1976, p.5)

[11] On the subject of economic developments in the early 80's and short-term prospects, the 1981 OECD Economic Survey points out that:

> "At the beginning of 1980, prospects seemed particularly uncertain as there was a risk of pent-up wage and income claims being released upon expiration of the 15-month incomes and price freeze at the end of 1979, and because most of the adjustment to the second oil shock had still to be completed. In the event, real output rose slightly less than expected, mainly du to slower growth of private consumption and export. (..). On the basis of present trends and policies it may be difficult to avoid a deterioration in competitiveness in 1981. (..). Assuming no major increase in oil prices, the current external balance may deteriorate again." (OECD, 1981, pp.5-6)

[12] Dr. P. Hjort, director of the Health Services Research Unit of the National Institute of Public Health, interviewed in Oslo in November 1982, affirmed that:

> "The Unit of Health Services Research (within the National Institute of Public Health) was established in the 70's in the belief that medicine in Norway has reached the point where money cannot buy an unlimited service; hence the need to search for more efficient and effective ways of delivering health measures."

[13] In the governmental publication entitled "Health for All by the Year 2000 - the Norwegian Contribution" (Norwegian Directorate of Health, 1980), it is stated that clinically-trained doctors and nurses in Norway find themselves confined to the treatment of medical aspects of complex health problems having ramifications far beyond the boundaries of their education.

CHAPTER 6.: THE CANADIAN APPROACH TO NUTRITION POLICY AS A HEALTH PROMOTION STRATEGY

In this Chapter I shall analyse the way in which Canada has structured programmes and activities in nutrition-related areas, since the publication of the Lalonde Report in 1974.

In the first part of the Chapter I shall demonstrate that the rise of "nutrition" and "food" as policy issues in the 70's was influenced by a growing concern with the incidence of diseases where diet is considered to be one of the causal factors (e.g. atherosclerosis), and by a number of economic and political circumstances.

In Section 6.2 I shall analyse the 1977-78 attempt to formulate a Canadian food policy incorporating nutritional goals. In Section 6.3 I shall concentrate on the reasons for the failure of Canada's food strategy.

Finally, in Sections 6.4 and 6.5, I shall examine the various policy means, and the rationale upon which they are based, which are currently used in health promotion in nutrition-related areas. In these final sections, I shall point out that educational and (to a lesser extent) regulatory policy means are used in Canada to cope with the various sources of uncertainty present in this type of health promotion policy.

6.1 The Rise of Nutrition-related Policy Issues in the Canadian Political Arena During the 1970's

My analysis indicates that nutrition became a policy issue debated in the Canadian political arena in response to three major reports.[1] These are:

(a) The 1972-73 National Nutrition Survey [NNS] (DNH&W, 1973);

(b) The Lalonde Report in 1974 (Lalonde, 1974);

(c) The Report of the Committee on Diet and Cardiovascular Disease (known as the "Mustard Report") in 1976 (DNH&W, 1976).

A series of economic and political circumstances also prepared the ground for an attempt at federal level to establish a sort of national nutrition and food policy for Canada in the late 70's (see: Section 6.2).

As the analysis of the Lalonde Report has been covered in Chapter 4, Section 4.2, I shall concentrate only on the NNS and on the Mustard Report. The 1977-78 attempt to formulate and implement a national nutrition and food policy will be analysed in Section 6.2.

6.1.1 The 1972-73 NNS

Although many nutrition surveys have been carried out in various parts of Canada over the years (see: Little, 1912; Appleton, 1921; Adamson et al., 1945; Moore et al., 1946; Demers et al., 1965), the NNS was the first national survey and is still considered to be the most comprehensive

nutritional survey ever conducted in Canada (DNH&W, 1979).[2] The NNS was expected:

> "(..) to provide a sound basis of precise scientific information on the nutritional status of the Canadian population. (..) [And to provide] (..) the basis for planning future informational, educational, public health and welfare programs, for further evaluation of food and drug regulations affecting the nutritional quality of the national food supply, and for the identification of problem areas where existing knowledge is inadequate and warrants further research." (DNH&W, 1973a, p.1)

From the Data of the NNS, a number of reports on the nutritional situation of the various Provinces and of the Indians and Eskimos were published (see: DNH&W, 1975a-l (inc.); see also DNH&W, 1975m; 1977a; 1977b).

There is insufficient space here to explore the mass of information obtained from the NNS; nevertheless, its main findings can be summarized as follows (see:DNH&W, 1973a; see also: DNH&W, 1979):

1. For the majority of those surveyed, the daily intake of nutrients was found to be more than adequate;

2. The groups with the least satisfactory nutritional status were Inuit people, the elderly and those with the lowest incomes;

3. About one-half of the adults studied were overweight [3]. Among the overweight adults, up to 10 per cent of the males and 30 per cent of the females were obese [4];

4. The median intakes of protein exceeded, and for some groups greatly exceeded, the recommended amounts (see: DNH&W, 1975a-k (inc.));

5. The prevalence of iron deficiency was low. However, a substantial number of Canadians, particularly women of childbearing age, had poor iron intakes and low iron stores (DNH&W, 1973a; 1973b; 1979, p.29).

6. Calcium intakes were generally satisfactory, but low intakes by teenage girls and pregnant women were causes for concern (see:DNH&W, 1975a-k (inc.));

7. The median intakes of vitamin C were low in a significant proportion of the elderly and those with low incomes (see: DNH&W, 1975a; 1975i; 1977a).

In conclusion, the NNS showed that nutritional problems were more disturbing for the native people, the elderly and those in the income lowest groups. It showed also that one of the greatest nutritional problems facing Canada was the overconsumption of energy (see also: Beare-Rogers, 1981).

6.1.2 The 1976 Report of the Committee on Diet and Cardiovascular Disease [The "Mustard Report"]

It should be said at the outset that the Mustard Report could be analysed from two different perspectives:

a) an epidemiological perspective (i.e. its effectiveness in providing evidence in exploring the aetiology of atherosclerosis and related diseases); and

b) a policy perspective (i.e. its role in raising the issue of nutrition at the political level and in shaping nutrition and health promotion policies).

The latter perspective will be emphasized here.

The aim of the Report was to examine the relationship between diet and cardiovascular disease and also between diet and the general health of Canadians. The Mustard Report notes that Canadians enjoy one of the highest standards of living in the world and a life expectancy similar to that of other western industrialized nations (see: DNH&W, 1976c; Statistics Canada, 1978-79). However, the Mustard Report draws attention to the high frequency of disease and death from atherosclerosis (hardening of the

arteries causing heart attacks, strokes, etc.).

> "Indeed 50 per cent of all deaths in Canada are related to atherosclerosis. This condition occurs not only in old age, but also affects significant numbers of Canadians in middle age. About one third of all deaths among people under 65 are attributed to atherosclerosis. Because Canadian men 45 to 54 years of age have more than twice as many deaths from atherosclerotic heart disease as men in Sweden, it is reasonable to believe that something can be done to reduce the high death rate in Canada from this cause, especially in the middle-age groups." (DNH&W, 1976c, p.8) [5]

In spite of uncertain aetiology (discussed in Chapter 2, Section 2.1.3) characterizing disease and death from atherosclerosis, the Mustard Report claims that there are definitely known risk factors determining the occurrence of atherosclerosis and its complications. These include elevated blood fats (cholesterol and triglyceride), high blood pressure, smoking and diabetes. Along with the Lalonde Report (see: Chapter 4, Section 4.2), the Mustard Report affirms that:

> "Most Canadians can improve their health and life expectancy by avoiding overeating and smoking. Medical examination should include measurement of blood cholesterol, triglycerides, sugar and blood pressure. If any of these are found to be elevated, investigation and treatment should be carried out by a physician.
> In addition to these definite health measures, Canadians are also advised to practice moderation in the use of foods and beverages which tend to elevate blood fats and to avoid foods which provide calories without essential vitamins and minerals." (DNH&W, 1976c, op. cit., p.9).

In order to help Canadians to select a healthy diet, the Mustard Report proposes a set of nutritional guidelines (see below) based on the analysis of a vast literature. However, the following studies in particular played a major role:

Kinsell et al., (1952); Beveridge et al., (1959; 1960); Ahrens (1957); Rinzler (1968); Keys (1975); Miettinen et al., (1972); Turpeinen et al., (1968); Leren (1966); and Christakis et al., (1966).

From a policy angle the Mustard Report represents:

(i) an educational tool (i.e. the establishment of dietary guidelines and other nutrition-related information); and

(ii) an attempt to influence government activities in the health, agricultural and industrial sectors.

6.1.3 Dietary Guidelines in the Mustard Report

The Mustard Report claims that there is an adequate basis for recommending changes in the Canadian diet.[6] In particular, Canadians should observe the following principles (see: DNH&W, 1976c, op. cit., p.10 and Chapter 10, p. 81).

1. Consume a nutritionally balanced diet.

2. Avoid overweight.

3. Limit the total amount of fat, cholesterol, sugar, alcohol and salt in the diet.

4. Reduce the total amount of saturated fat in the diet and replace some of this with polyunsaturated fats.

The Report also gives practical suggestions and educational information which can be grouped under 4 headings (see:DNH&W, op. cit., pp. 10-13).

a) Basic Nutritional Premises

** a nutritionally adequate meal pattern based on Canada's Food Guide;

** 30 to 35 per cent of total calories as fat;

** 400 mg or less of cholesterol daily;

** a reduction in saturated fat intake and an increase in polyunsaturated fat intake;

** 40 to 50 per cent of calories as carbohydrate with a reduction in sugar intake and replacement by starches;

** a reduction in the use of salty foods and in use of salt in cooking and at table.

b) Calories Control

** Limit intake of high caloric snack foods such as potato chips, other deep-fried snacks, chocolate and other candies, and soft drinks.

** limit intake of high calories, high fat desserts such as pies, cookies, cakes and ice cream.

** Limit intake of all forms of alcohol.

c) Cholesterol Intake Control

** eat no more than four eggs per week, including eggs used in cooking.

** limit the use of organ meats and shrimp to one serving per week.

d) Fat Intake Control

** Choose lean cuts of meat.

** Use fish or poultry in place of beef, lamb or pork four or more times a week.

** Avoid foods that are deep-fried, except those fried in polyunsaturated oils (e.g. corn, soya and sunflower seed oil).

** Use cooking methods that help to remove fat such as baking, broiling and boiling.

** Limit the use of high fat, processed meats such as sausages, frankfurters and luncheon meats to two servings per week.

** Make use of vegetable oils, margarines and shortenings that are identified as "polyunsaturated" in place of other fats.

** Reduce intake of whole milk, cream, cream cheese and ice cream.

** Replace these with low-fat dairy products, such as skimmed milk, low-fat cottage cheese and yoghurt.

The Mustard Report makes three main contributions to health promotion policy. First, its nutritional guidelines indicate types of food that should be cut down in the diet of Canadians. However, because of its remarkable clarity, the Report was seen as a threat by many sectors of the agricultural lobbies and beef, pork and fast food industries. Thus, in order to minimize conflict, the original recommendations were reviewed before being adopted by the Dept. of National Health and Welfare in 1978-79 (see: Section 6.4.1; see also: Murray and Rae, 1979; Nielsen, 1983; Nielsen, Personal Comunication 1982; Interviews with Dr. K. Murray; Dr. H. Nielsen; Dr. J. Beare-Rogers; Prof. G. Beaton; Dr. I. Munro; Dr. E. Coffin; Mr. I. Campbell).[7]

Second, it produces reasonable evidence that nutrition plays a significant part in the development of cardiovascular disease leading to heart attacks and strokes, and that a significant amount of cancer is caused or influenced by dietary factors (see also Mustard, 1978-79). But, in contrast to the prevailing trend of health promotion in North America and other Western countries, the Mustard recommendations do not imply a merely individually-oriented approach based on persuasion through health education activities (see below).

The Report, in fact, stresses that it is difficult for any policy to be effective in reducing the incidence of cardiovascular diseases, unless it is done under the umbrella of a national nutrition policy involving all the key groups that influence the types of food available on the

market (see: DNH&W, 1976c).

Third, It also analyses the changing trends in Canadian food consumption (see: DNH&W, op. cit.). However, it overlooks various factors influencing food habits such as those identified in Chapter 2, Section 2.2 (e.g. educational, economic, psychological, etc.). It is indeed surprising that a Report of such relevance, both in Canada and abroad, omitted to consider this important aspect of nutrition policy.

6.1.4 Analysis of the Mustard Report's Recommendation for a Canadian Nutrition Policy

Underlining the need for a national nutrition policy [NNP], the Report notes that there are a number of governmental and non-governmental institutions that have jurisdiction over nutrition-related matters (e.g. provincial and federal governments, food producers, food processers, food marketing boards, and so forth). The Report identifies 6 federal departments involved in this policy area: (i) the Dept. of Agriculture; (ii) the Dept. of Consumer and Corporate Affairs; (iii) the Dept. of National Health & Welfare; (iv) the Dept. of Industry, Trade & Commerce; (v) the Dept. of Environment (Fisheries and Marine Service); and (vi) the Ministry of State for Science and Technology.

The Report ascertained that there was inadequate coordination among the above departments in activities relating to food production, processing and labelling and

health (see: DNH&W, 1976c, Chapter 8). Moreover it notes that:

> "It is possible that the goals of agriculture and industry may be different from the goals of National Health and Welfare. However, in a situation in which products of agriculture and industry play a major part in determining health, obviously the economics of agriculture should not override the health needs of the population in respect of food."[8] (DNH&W, op. cit., p. 71).

The Report advocates a national campaign to promote its dietary recommendations (see also Section 6.4.1 and Fig. 6.D) within the context of a NNP. The goals of the NNP should be:

(1) The establishment, in collaboration with the Departments of Agriculture and Environment (Fisheries and Marine Service), of a long-term programme to ensure the availability of a suitable nutritious food supply where health aspects must have first consideration in food production.

(2) The production, development and supply of appropriate foods by agriculture and the food processing industry.

(3) The provision of a logo to identify those foodstuffs which fit the programme.

The Mustard Report urges the Health Protection Branch of the Dept. of National Health and Welfare to undertake measures to coordinate the NNP (See: DNH&W, op. cit., pp.76-77).[9]

In conclusion, the Mustard Report stands out as providing a bold set of recommendations for governmental policy purposes. It is admirable in its appreciation of the fact that promoting a nutritious diet without making a food policy where the foodstuffs can be easily available and identifiable for the consumer, will be unlikely to be effective in changing dietary habits.

However, the Mustard Report paradoxically identifies and

recommends a "desirable" change in health, economic and agricultural policies to improve the health of Canadians, and yet avoids assessing the "feasibility" of the proposed policy measures in the Canadian context. In Tab. 6.1 I have summarized those recommendations which have been implemented and those which have been rejected as a result of lobbying and negotiation among the Departments of Agriculture, Health and Welfare, Consumer and Corporate Affairs, the various segments of the food industry, etc. (see: DNH&W, op. cit., Chapter 10, Parts B and C; see also Interviews with: Dr. Murray; Dr. Nielsen; Dr. Davey; Dr. McKinley).[7] [10]

Tab. 6.1 - The Mustard Report: Recommendations for Government, Agriculture and Industry (o)

- Accepted or Partially Accepted -

** Canada's Food Guide should be developed in keeping with the recommendations

** Campaigns to promote the recommended dietary changes

** A campaign to promote regular physical activity as a part of Canada's lifestyle in coordination with the campaign to promote the recommended dietary changes

** Efforts to control (mainly through health education) other risk factors such as hypertension, smoking and sedentary lifestyle, connected with coronary heart disease

** The development and marketing of modified foods (e.g. butter-margarine blends) - adopted only in some provinces

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- Rejected -

ff The use of subsidies to stimulate production and consumption of foods in keeping with nutrition recommendations

ff The establishment, under the Dept. of NH&W, of a Nutrition Advisory Committee [NAC] to be composed of consumers, representatives from agriculture and fisheries, the food industry, government and professionals to provide advice on a National Nutrition Programme for Canada

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Source: DNH&W (1979, Section III.2.1; Interviews with Dr. Murray; Dr. Nielsen; Mr. Campbell; Ms. McKinley; Dr. Davey; Dr. Coffin; Dr. Munro.[7] [10]

(o) The information in this table is up-dated to June 1983

6.2 The Attempt of the Late 70's to Formulate a Canadian Nutrition and Food Policy

In this section, I shall aim to answer two basic questions:

(i) why, in the late 70's, food and nutrition matters bacame political issues in Canada; and

(ii) how the problem of nutrition and food policy was dealt with.

6.2.1 Analysis of why Nutrition and Food became a Policy Issue

The results of my analysis indicate that two elements in particular played a vital part in bringing nutrition and food-related matters into the political arena:

1. the need for income stabilization and support measures for farmers; and

2. growing concern about sharp increases in food prices, starting in the early 70's.[11]

The content of the document "A Food Strategy for Canada" (Depts. of Agriculture and Consumer & Corporate Affairs, 1977) supports my argument. This document was published jointly by the Ministers of Agriculture and Consumer & Corporate Affairs. It states that although Canada is one of the few countries in the world fortunate enough to produce more food than its population consumes:

> "(..) events of recent years have focused public interest even more sharply on the food sector. There is now greater concern about nutrition, food additives, food prices, income stability for farmers and fishermen, and conservation of land and fishery resources. This increase in concern has led the federal government to take stock of the policies

> affecting the food industry and to outline a food strategy for Canada which will be appropriate to the circumstances we are now facing." (Depts of Agriculture and Con. & Corp. Affairs, op. cit., p. 7) (Emphasis added)

With respect to the need for income stabilization and support measures, "A Food Strategy for Canada" [FSC] claims that farmers and fishermen have suffered from the severe effect of income instability (see: Depts of Agriculture and Con. & Corp. Affairs, 1977, p. 17). The Task Force Report on the Orientation of Canadian Agriculture (Dept. of Agriculture, 1977, Vol. 1; Part. A, p. 87) points out that:

> "After a period of relative stability through the 1950's and 1960's, aggregate net farm income increased dramatically in the 1970's from an average of 1,668 Mil. dollars in 1966-1970 to 2,968 Mil. dollars in 1971-75. (..) However, this rate of increase will not be maintained, as net farm income declined in 1976 and is forecast to decline again in 1977."

It must also be added that the increase in aggregate income has not been shared equally by the various subsectors of the agriculture system (actually certain subsectors have even experienced chronically depressed incomes; see: Depts of Agri. and Con. & Corp. Affairs, op. cit., p. 17). In fact much of the benefit of increased farm income has accrued to grain farmers; whereas livestock producers, for example, have not been so fortunate (see: Dept. of Agriculture, 1977, Orientation of Canadian Agriculture, Vol. 1, Part A, Tab. 4.18 on "Aggregate Farm Income by Type of Farm, 1971-75").

The 1977 Task Report on the Orientation of Canadian Agriculture claims that an important feature of the farm income situation in Canada is the extreme variation that may

occur in aggregate net farm income from one year to the next, partially as a consequence of fluctuations in crops, but also reflecting changes in commodity prices on international markets (see: Dept. of Agriculture, 1977, op. cit., Vol. 1, Part A, p. 87 and 90).[12] Of course, the effects of these variations depend on the type and size of farms (see: Dept. of Agriculture, 1977, op. cit., Vol. III and IV; see also: Williams, 1979).

Another factor contributing to the growing concern about income stabilization and support for Canadian farmers was a widening of the gap in earning between full-time farmers and workers in manufacturing industries (see: Depts. of Agriculture and Con. & Corp. Affairs, 1977, op. cit.; see also: Dept. of Agriculture, 1977, op. cit., Vol. II, Fig. 12 and Vol. III, Chart 1.0).
Fig. 6.A shows a deterioration of farm incomes compared to earnings in manufacturing industries, in the mid 70's (i.e. before the publication of "A Food Strategy for Canada"), to an extent that it became a political problem and policy issue (see: Interviews with Dr. Davey; Prof. Love; and Mr. Labonte).[13]

Figures 6.B and 6.C reveal some of the reasons behind the growing concern over sharp increases in food prices in the mid 70's. Fig. 6.B shows that the index of farm input prices rose sharply and continuously from 1971 much faster than farm output prices. There has also been some widening of the discrepancy between farm output prices and both (i) the price received by food and beverage manufacturers and

(ii) the prices paid by consumers as reflected in the Consumer Price Index for food. Fig. 6.C shows the performance of the CPI and the food component in it over the period preceding the release of the document on the Food Strategy for Canada in 1977. The graph in Fig. 6.C reflects the sharp increase of both indices in the mid 70's.[14]

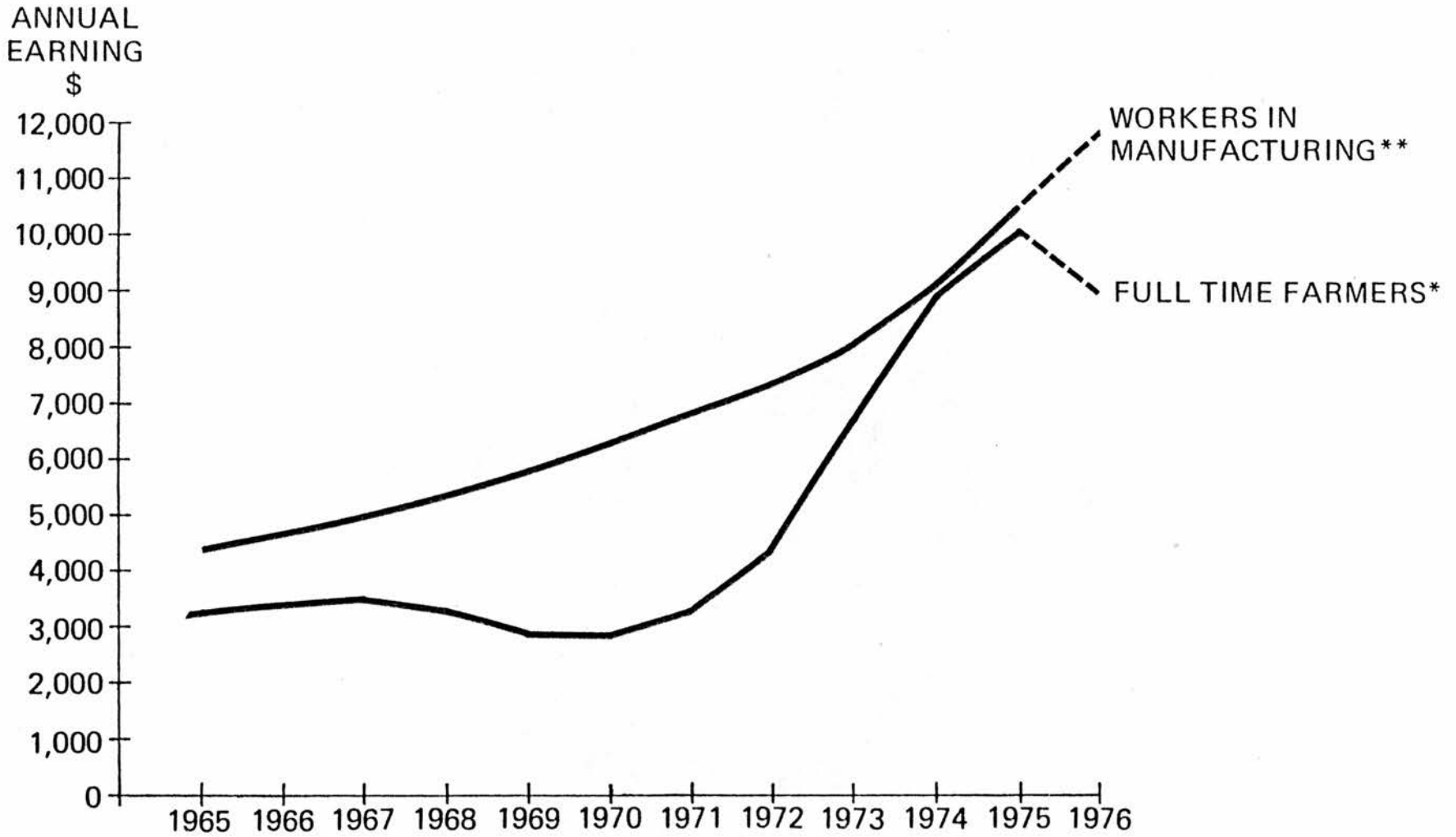
"A Food Strategy for Canada" (op. cit., p.14) affirms that:

> "In the 1972-75 period, largely because of events in international grain markets and general inflationary trends, food prices increased by 50 per cent and consumer expenditures on food took a large proportion of real incomes. Extraordinary price increases were experienced for grains, all meats, eggs, sugar and some fish products. Consumers began to question the fairness of the marketing system. (..)
> In the 1975-77 period, especially with the introduction of anti-inflation controls, food prices were identified as a key element in the inflation spiral and the food sector became a primary concern." (Emphasis added)

By referring to the above quotation Dr Davey (interviewed in Ottawa, on the 8th of June 1983, at the Federal Dept. of Agriculture [10]) affirmed that:

> "It is in this political and economic context that, in the second part of the 70's, the government came to the conclusion that Canadians needed reassurance that the food marketing system was "fair" and "efficient" and that the government itself was committed to safeguarding the interests of both producers and consumers."

Fig.6.A – AVERAGE ANNUAL EARNINGS, FULL TIME FARMERS AND WORKERS IN MANUFACTURING INDUSTRIES

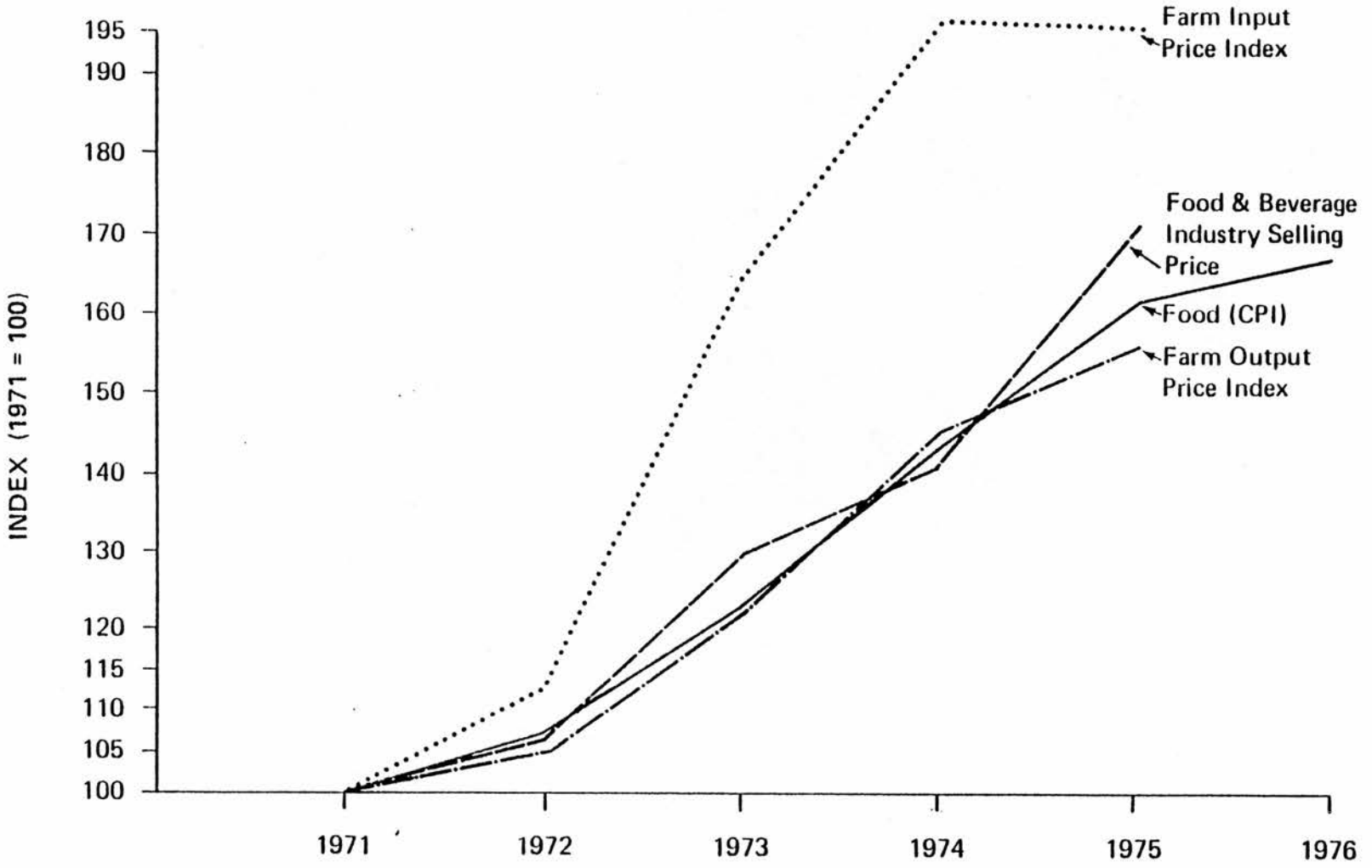


* INCLUDES RETURNS ON INVESTMENT AND NON-FARM INCOME

** WAGES FOR 52 FORTY HOUR WEEKS

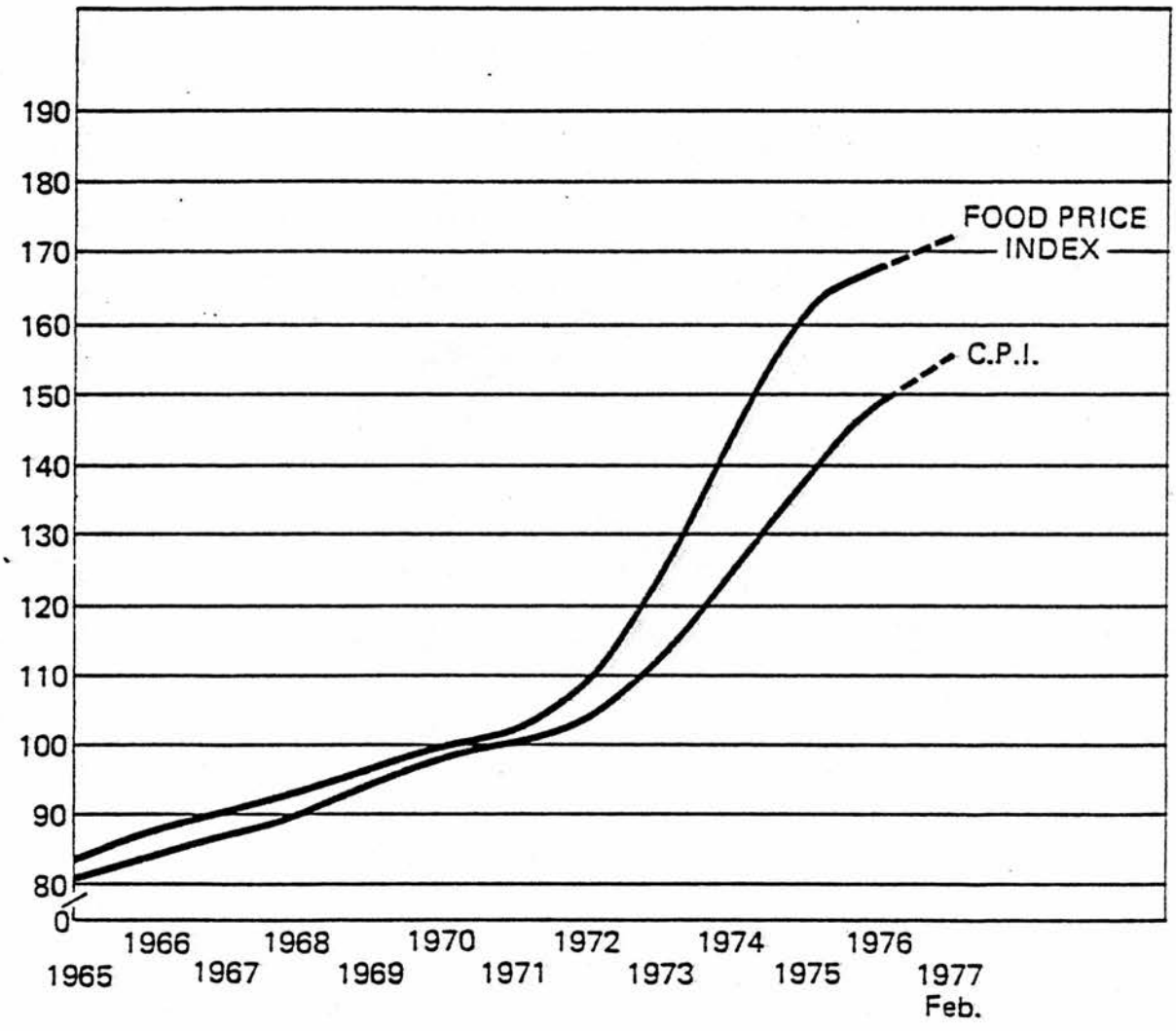
Source: Revenue Canada Data

Fig.6.B - AGGREGATE PRICE INDEXES FOR THE CANADIAN FOOD SYSTEM, 1971 to 1976



Source: Statistics Canada, Cat. 62-003, 62-004, 62-010 and 62-011.

Fig. 6.C: CONSUMER PRICE INDEX AND FOOD PRICE INDEX 1965–FEB. 1977
(1971=100)



Source: Handbook of Food Expenditures, Prices and Consumption, Agriculture Canada and 62-001, Statistics Canada

6.2.2 Decription of the Way in Which Food Policy was addressed in Canada in the Late 70's

The government's overall intention to address the subject of food and nutrition is stated on page 17 of the document "A Food Strategy for Canada" (Depts of Agriculture and Con. and Corp. Affairs, 1977):

> "Government policies must continue to develop and expand Canada's production and export strengths to ensure the adequacy of safe and nutritious food supplies for the domestic and export markets at reasonable prices which are responsive to competitive forces over time". (Emphasis added)

Although it seems to me somewhat debatable to consider "production" and "export strengths" as criteria for ensuring the adequacy of "safe" and "nutritious" food, the document identified 6 priority areas for developing a FSC, which I have outlined in Tab. 6.2 [15] In Tab. 6.3 I have illustrated the consultative process set in motion by the government activities subsequent to the publication of "A Food Strategy for Canada".

To sum up, these two tables outline the record of the FSC. Unfortunately, the attempt to include nutrition considerations in a food policy encompassing agriculture, fishery, industry, trade and commerce and other related policies never really got off the ground. The reasons for the difficulties encountered in the development of the FSC are discussed in Section 6.3.3.

Tab. 6.2 - Government Guidelines on food and nutrition-related matters with a view to the formulation of the 1977 FSC

Priority Area I: INCOME STABILIZATION

1. improve the efficiency and orderliness of agriculture and fisheries markets;

2. protect domestic markets from short-term depressed or inflated world market prices;

3. protect the incomes of efficient producers from market price instability;

4. provide producers with protection from production uncertainty.

Priority Area II: TRADE POLICY and SAFEGUARDS

1. providing producers and consumers with protection from short-term distortions in the world commodity market;

2. identifying food commodities which may require more appropriate longer term protection in view of their importance to a certain region, special problems of upgrading, or institutional difficulties (e.g. some segments of the horticultural industry);

3. negotiating better access in foreign markets for Canadian agriculture, fisheries and food products; and

4. initiating international multilateral or bilateral agreements where these are in the interest of the Canadian economy.

Priority Area III: RESEARCH, INFORMATION and EDUCATION (including nutrition and food safety)

1. assuring adequate information services so that the producers are assisted in adopting new products or technology in order to respond more quickly to change in market circumstances;

2. developing effective ways of educating Canadian consumers about the importance of a nutritious diet and ensuring that information about the nutritive content of foods is readily available.

Priority Area IV: MARKETING and FOOD AID

1. promoting more efficient marketing of Canadian food

products;

2. improving market information for producers and consumers;

3. assisting food-deficit countries through the funding of multilateral aid programmes and through the expansion of technical assistance programmes.

Pririty Area V: PROCESSING, DISTRIBUTION, RETAILING

1. strengthening the ability of this sector to monitor its performance, including the effective utilization of modern technology and the avoidance of unnecessary costs to product differentiations;

2. enhancing the productivity and efficiency of this sector.

Priority Area VI: CONSUMER CONCERNS

1. providing regular price information to consumers on a selected set of basic foods, and reinforcing present approaches to food safety and quality, public information and education;

2. strengthening food inspection services and working with the provinces towards a set of nutritional food inspection guidelines;

3. at the same time as protecting producers and consumers from short-term distortions in world commodity markets, enhancing the productivity, and competitiveness of food production, processing, distribution and retailing;

4. improving the structure, personnel training and procedures of boards, agencies and other institutions involved in food production and marketing, and making more information on them available to the public;

5. giving greater emphasis to the importance of food safety and good nutrition and ensuring that agriculture production policies take into account nutritional and safety implications.

Source: Dept. of Agriculture and Consumer & Corporate Affairs (1977); Government of Canada (1978, Feb. 13)

Tab. 6.3 - Major developments in the FSC - 1977-1980

EVENT 1.: Publication in 1977 of "A Food Strategy for Canada" (Depts of Agriculture and Con. & Corp. Affairs, 1977, June).

POLICY RELEVANCE: This document put forward the general principles which should guide government in the development of the FSC (see: Tab. 6.2)

EVENT 2.: With the release of "A Food Strategy for Canada" a consultative process, involving the various food organizations, was set in motion and the "Report on Presentation of Briefs on A Food Strategy for Canada to a Panel of Federal Ministers" was produced (see: Government of Canada, 1977, Dec. 5-6 and 9).

POLICY RELEVANCE: The government received briefs from over 70 organizations. 9 national organizations, representing different segments of the food system, from production to final consumption, presented briefs related to the impact of "A Food Strategy for Canada" on their sector. Expectations, doubts and vested interests concerning the implementation of the FSC became more evident.

EVENT 3.: In February 1978 the National Food Strategy Conference was held in Ottawa. Over 400 representatives of all sectors of the food system, including consumers, participated in 2 days of discussions.

POLICY RELEVANCE: For the first time, representatives of all sectors of the food system participated in discussions on food problems, opportunities, programmes and policies. The conference provided the opportunity for delegates fo inform government of their views on various policy issues.

EVENT 4.: Following the Conference (Event 3.), the Committee of Deputy Ministers on Food Policy [CDMFP] was established under the joint chairmanship of the Deputy Ministers of Agriculture and Consumer & Corporate Affairs. In addition, other Departments and agencies were represented such as: Fisheries; Industry, Trade and Commerce; Health & Welfare; Regional Economic Expansion; Transport; Finance; the Privy Council Office and the Economic Council.

POLICY RELEVANCE: Attempt to coordinate the various functions of the policy and facilitate the decision-making process through consultations and accommodating agreements amongst the institutions and interests involved.

EVENT 5.: The CDMFP established two committees, the Interdepartmental Steering Group on Food Policy [ISGFP] composed of senior officials from the same departments as the CDMFP, and the Interdepartmental Committee on Food Quality and Safety [ICFQS] (*).

POLICY RELEVANCE: The ISGFP aimed to continue the development of FSC, basically through: (i) reviewing government decisions; and (ii) developing proposals for consultative activities. The ISGFP also established sub-groups to plan and undertake work in several areas (e.g. consultation with the private sector).
The ICFQS aimed at ensuring that government programmes were comprehensive and effective in identifying and dealing with food safety problems. This committee was also responsible for work on nutrition.

The work of interdepartmental consultations led to the decisions that: (i) policy guidance should be given to selected new and amended food regulations by the CDMFP before referral to ministers for decision; and (ii) as part of the policy-making process, each submission should include a Nutritional Impact Statement [NIS].

Source: Government of Canada (1978, Dec. 12); (1978, Dec. 13); (1979, Feb. 9); Interviews with Dr. Davey; Dr. Coffin; Dr. Munro; Mr. Campbell [7][10]

(*) The ICFQS included senior officials from the Departments of Agriculture; Con. & Corp. Affairs; Health & Welfare; Fisheries and Industry, Trade and Commerce

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6.3 Analysis of the Structure of the proposed Food Policy and the Role attributed to Nutrition in the FSC

In this section I shall concentrate on the exploration of four issues:

(i) what the Canadian authorities meant by a "Food Strategy for Canada";

(ii) the kind of role played by nutrition considerations in pursuing the objective of the Food Strategy for Canada [FSC];

(iii) the reasons for the failure of the attempt to formulate a FSC incorporating nutrition considerations; and

(iv) The likelihood of an integrated nutrition and food policy in the 80's.

6.3.1 Analysis of the Characteristics of the proposed FSC

Ideally, 4 main features contribute to shaping a national food policy (see: Loyns, 1977):

a) a clear and comprehensive statement of food policy objectives (in particular, one that distinguishes food policy from agricultural policy);

b) the setting of priorities among conflicting objectives and in face of obvious constraints and uncertainties;

c) the establishment of the necessary institutions to draw up policy objectives and priorities; and

d) the identification of the policy process and operational means for the adoption of programmes.

In this section I shall argue that Canada failed to incorporate these elements in her food strategy.

In the document "A Food Strategy for Canada" (Depts of Agriculture and Con. & Corp. Affairs, 1977, p. 16) it was pointed out that:

> "Canadian food policy is a combination of federal and provincial programs. It goes beyond agriculture and fisheries programs to include the processing, distribution and retailing sectors. It must cover consumer concerns, including such policies as consumer protection and a number of special measures to moderate the effect of retail food prices." (Emphasis added)

The above quotation would suggest that the FSC addresses food matters in a fairly comprehensive way. The Canadian document (op. cit.) recognizes that the FSC goes beyond agriculture since food must be transported, processed and packaged before it reaches the consumer (see also Tab. 6.2).

"A Food Strategy for Canada" also contains the underlying assumption that the market economy is the best context for achieving the FSC's objectives efficiently:

> "(..) the future potential of Canada can best be realized and the goals of Canadians most fully achieved through increased reliance on an efficient market system. (..) Governmental policies should aim, (..), to improve the operating efficiency of markets in a manner which enhances the attainment of social goals within a framework of continuing government expenditure restraint with less, rather than more, direct government intervention in the economy." (Depts of Agriculture and Con. & Corp. Affairs, op. cit., p. 16). (Emphasis added)

The emphasis on faith in the market economy and the unclear role to be played by the government (active or passive) appear, in my view, to conflict with the intention of formulating a "comprehensive" food and nutrition policy. In addition to this, the faith in the market economy contained in "A Food Strategy for Canada" failed to provide

a direct answer to three basic questions:

(a) How should the market economy effectively guarantee the achievement of the FSC's objectives?

(b) Have other alternatives been taken into account and which criteria have been used to decide their rejection?[16]

(c) As a large number of interests are at stake in food policy decisions, can the market mechanism incorporate economic criteria as well as non economic ones (e.g. nutrition)?

Another underlying assumption of the FSC was that the food system must give every sector a fair return on its investment, and price changes should be reflected uniformly throughout the system (see: Depts of Agiculture and Con. & Corp. Affairs, op. cit.; see also: Government of Canada, 1978, Feb. 22-23). However the proposed policy neglected (whether consciously or unconsciously, it is difficult to say) to clarify the following issues:

(i) what are "reasonable prices" and what are "fair returns"?

(ii) Is a price established competitively always desirable or does it need to reflect society's concern with health?

(iii) Do price changes reflect supply changes for all key products and what are the criteria defining "key products"?

(iv) How do prices affect low income populations (usually nutritionally vulnerable) and whose responsibility is it to deal with this problem?

(v) Are quality of product (e.g. judged by nutritional criteria) and stable supply more desirable than modest increases in price?

In conclusion, the shortcomings of the late 70's attempt to formulate a FSC can be summarized in five considerations. First, the faith in the market economy as a mechanism to regulate food-related activities ruled out the possibility of using "facilitating policy means" in terms of subsidies and other incentives, to direct the flow of action towards

the desired nutritional goals. It is disappointing (and/or revealing of the very nature of the proposed policy) that subsidies and pricing policy in general, were not even considered as potential means. Indeed, one of the recommendations put forward by the workshops of the National Food Conference (Government of Canada, 1978, Feb. 22-23, p.53) was that:

> "Canada should strive for self-sufficiency in those food products for which we have a comparative advantage or marginal advantage, however, this must be a competitive not an artificial advantage created by undue protection or subsidization." (Emphasis added).

Second, as a consequence of the previous point, nutrition considerations were seen as marginal in shaping agriculture and other food-related policy (see also Tab. 6.2).

Third, the Canadian approach to food policy was rather naive in assuming that the FSC could apply a sort of Paretian criterion, where all the different stakeholders in the food system would be better off, and none worse off, as a consequence of policy decisions. On the contrary, as Tweeton (1969, p. 114) points out:

> "No program at the same time gives farmers high incomes and complete freedom, gives consumers plentiful food at low prices, and gives the government food reserves for emergencies (..).

Although one may appreciate the fact that at the stage of policy formulation it was necessary to obtain large consensus and minimize conflict, the FSC attempted to satisfy everyone by avoiding any innovative policy intervention. Thus, it lost credibility and it allowed the

most organized and powerful interest groups (e.g. certain sectors of the agricultural lobby; the food industry, etc.) to determine the nature of the policy.

Fourth, the FSC failed to identify effective policy processes (apart from consultative ones and the establishment of many committees) for bringing about desired changes. The FSC did not promote any "fundamental" goal and the guidelines proposed were sometimes even in conflict with each other. This weak point of the FSC was compounded by the intricate Federal-Provincial relationships on food-related matters, with two negative consequences:

(i) non-motivated Departments (e.g. the Dept. of Agriculture) and some sectors of the food industry involved in the consultative processes were able to either slow down the policy-making process or even bring it to a halt.

(ii) the policy-making process as a whole was characterized by a sort of "disjointed incrementalism" complicated by federal and provincial jurisdictions which did not make for circumstances conducive to introducing innovative and fundamental goals.

Fifth, the FSC overlooked the problems of developing a coherent national food strategy within a system where provincial interests and autonomy are very strong.

6.3.2 Analysis of the Role of Nutrition in the Formulation of the FSC

The analysis in the previous section shows that the role of nutrition in the formulation of the FSC was not explicit enough. The importance of good nutrition was indeed emphasized, but there was no real attempt to bring agricultural, industrial and other food-related activities in line with health crieria. Tab. 6.2 demonstrates that the emphasis was on nutrition education and information. The goal "nutrition", in the structure of the FSC, was based on the ethical value that consumers must have information on food quality and nutritive value of foods to make wise choices, on the assumption that the provision of reliable information would facilitate "healthy behaviour".

Thus, nutrition goals were to be achieved through consumer-oriented initiatives which could be put into practice either by health education or by regulatory policy means such as labelling and food safety regulations. As has already been mentioned in Section 6.3.1, there was no attempt to use facilitating policy means (e.g. subsidies) to steer the agriculture and food-related policies in the nutrition direction (see: Depts of Agri. and Con. & Corp. Affairs, 1977; Government of Canada, 1978, Dec. 12; Gov. of Canada, 1978, Dec. 13; see also: Allison, 1982; Cervinskas, 1982; Labonte and Penfold, 1981).

At the National Food Strategy Conference of 1978 (see: Gov. of Canada, 1978, Feb. 22-29) it was stated that the

government had accepted the principle of desirable diet as a vital element in its food strategy, and that it was committed to giving nutritional factors full consideration in its food-related policies (see also: Gov. of Canada, 1978, Dec. 12; 1978, Dec. 13). However, at the Conference, the statements by Federal Ministers were far less concerned about the importance of nutrition (see below).

The notes for a speech by the Honourable Monique Begin, Minister of Health and Welfare, indicate (although from a rather optimistic perspective) the importance of nutrition in shaping food-related policies:

> "What does in fact take first place is the issue of nutrition. We all agree on it, I believe. (..) We are agreed that there will be more emphasis on nutrition in Canada's Food Strategy, and that this will be achieved through greater cooperation between everyone directly concerned".

However, there is virtually no mention of nutrition in the address by the Honourable Eugen Whelan, Minister of Agriculture.

> "In your workshops discussion I would like you to consider the implications of our agricultural development strategy which is in the process of implementation. We have identified eight objectives of this strategy (..). Our first objective is to <u>increase efficiency</u> in Canadian agriculture (..). Two: we want to maximize value added in agriculture by making certain that we direct our resources towards those commodities which have <u>the greatest market potential</u>. (..) Seven: we have to provide some sort of long-term <u>protection against foreign competition</u> (..). Eight: (..), we must aim to <u>improve access to foreign markets</u> for Canadian agriculture commodities (..)." (Emphasis added)

In the address by the Honourable Jack Horner, Minister of Industry, Trade and Commerce, nutrition and other

considerations should be secondary to the overridding goal of economic development.

> "It is important that the food system provide an adequate return for efficient processors, distributors and retailers, or we risk market distortions and curtailment of the food available to consumers. (..).
> As you are aware, the government is committed to a market-oriented economy. It continues to be our view that the marketplace provides the best allocation of resources. (..). I am sure it is not the intention of any of my colleagues to engage in witch hunts.
> In a period when Canada is facing serious economic problems, it is my contention that economic development should have the highest priority in policy making at all levels." (Emphasis added)

The above quotations show the different importance attributed to nutrition by some government departments in the formulation of the FSC. Furthermore they anticipate an issue which I shall raise later, namely that in the Canadian food system there are many vested interests and only few (if any) have nutrition as first priority (see Section 6.3.3).

The following conclusions can be drawn.

First, efforts to promote nutrition within the FSC pivoted on "how to motivate people to change unhealthy food habits". One wonders whether the more basic question "what should be changed in the Canadian food production policies?" was even considered.

Second, my analysis shows that nutrition was overlooked in the FSC. In his work "Should Nutrition be Part of the National Food Policy" (1979, p. 65) Sabry says:

> "I hope that you will not think that I am paranoic about nutrition all the time; this occurs only when it gets overlooked in the most obvious places. A good example of this is

> the "Food Strategy for Canada", (..). In this document nutrition and health aspects of eating were almost entirely overlooked." (Emphasis added)

Sabry claims that in Canada it is necessary to consider an integrated "Food and Nutrition Policy" that would take into account not only the production, processing and marketing of food, but also the health aspects and eating habits of the population. However, in my opinion, such a policy would not be realistic without the identification of fundamental goals, and perhaps not even then (see: Section 6.3.3). Such a policy, given the present structure of the Canadian food system, very rarely might maximize both economic short-term goals and health ones.[17] Hence, one can share Sabry's view (op. cit.) that the absence of the name of the Honourable Minister of National Health and Welfare from the authorship of the document "A Food Strategy for Canada" was neither innocent nor accidental.

6.3.3 Elements of Infeasibility for a Canadian Nutrition and Food Policy

As I discussed the major obstacles to the development of a FSC in Sections 6.3.1 and 6.3.2, in this Section I shall deal only with the failure to identify a workable Nutrition and Food Policy [NFP] for Canada. I shall argue that, within the federal structure of Canada, failure is mainly due to two reasons [18]:

1. The number of vested interests in this policy area; and

2. The very nature of NFP in a country such as Canada, where the agriculture is, broadly speaking export-oriented and the food industry is the largest employer sector in the country (see: Warnock, 1978; 1979).[19]

As far as the number of vested interests in the policy area of nutrition is concerned, the "Report on Presentation of Briefs on 'A Food Strategy for Canada'" (Gov. of Canada, 1977, Dec. 5-6 and 9) contains the reactions of nine national organizations, representing different segments of the food system from production to the final consumption.[20] These briefs offer an idea of the type of difficulties in accommodating the different interests involved in the FSC. The results of the six workshops organized by the National Food Strategy Conference, in 1978, also shed light on the sort of interests involved in the area of food policy (see: Gov. of Canada, 1978, Feb. 22-23).[21]

Perhaps the most vivid idea of the vested interests can be portrayed by quoting some of the statements made by delegates at the National Food Strategy Conference (held in

Ottawa on Feb. the 22nd and 23rd).[22]

Dobson Lea, of the Canadian Federation of Agriculture, Alberta, pointed out that:

> "(..) at this Conference, one thing must be made unequivocally clear (..), farming is the farmer's business. The organizations that represent farmers should not, cannot and will not turn over the job of running farm-marketing organizations of representing farmers, of deciding for farmers, of advising government on behalf of farmers to other than farmers. (..) We will not accept decision-making, consultative, advisory or representational systems where non-farm representatives are invited to be the vehicle through which the government is advised on the farmer's business".

Ruth Lotzkar, president of the Consumer's Association of Canada, replied:

> "I do not wish to speak to the details of the intervention made by the last speaker, [i.e. Mr. Lea], only to the spirit of it. (..) We must oppose an attempt by any special interest (..) to call for special treatment in the considerations of this Conference."

Elbert Van Donkersgoed of the Christian Farmers Federation, Ontario, identified some areas where the FSC was ambiguous and overlooked specific interests in segments of the food system:

> "(..) I think that a food strategy has to deal with (..) questions of what kinds of enterprises are involved in our food enterprises as a whole. I have in mind here whether or not we want public enterprise or family farm enterprise."

Leonard Roy of the Quebec Dairy Council and Quebec Food Council described the difficulties in implementing the FSC:

> "(..) In our opinion, it is as difficult to bring about this strategy as it is to rewrite the British North American Act. The main difficulty is to agree to submit to such a strategy."

The above quotations tell us that the FSC was feared to be infeasible and for some sectors of the food system even very undesirable from its very first stage of development. This background offers an explanation for the rapid disappearance of the various committees, such as the Interdepartmental Committee on Food Quality and Safety established after the National Food Strategy Conference in February 1978 (see: Tab. 6.3).[23]

In explaining the reasons for the failure of the FSC senior civil servants in federal departments (interviewed in June, 1983) [24] put the matter as folows:

> "(..) In 1978-80 the system [i.e. the activities initiated as a result of the first stage of the FSC development] fell apart and the FSC was over. In those years an effort was made, but it did not succeed for a number of reasons and because of power struggles within departments (i.e. who has the mandate, the leading role, and so forth).
>
> "(..) There was a lot of resistance in the department of agriculture to what it regarded as other departments trying to muscle in what it felt its responsibility and mandate".
>
> "(..) There was a big launch of the FSC but it fell flat partly because of a considerable lack of enthusiasm from a large sector of the agri-food system, partly because of the lack of an appropriate follow-up by the government to keep the momentum going (..)."

Thus, since the early 80's policy-making in food-related areas has returned to a sectoral approach. This move (away from coordinated and interdepartmental planning) is well represented, for instance, by the document "Challenge for Growth: An Agri-food Strategy for Canada", released in 1981 by the Dept. of Agriculture Canada (1981, July 9). In this document nutritition is entirely omitted, and the emphasis

is only on strategies for the marketing development of Canadian agricultural products. As one senior civil servant in a federal department commented [24]:

> "(..). The 1977 Food Strategy proposal was short-lived. (..). I think what we have got now is a return to a sectoral approach as it is represented by the document 'Challange for Growth' which is a strategy for the agricultural industry (..) you will find nothing there about nutrition or conumer interests. (..). Canada made an effort to develop a food and nutrition policy in the late 70's, it failed and I do not think another effort will be made. So far as I am aware there is no one pushing seriously for a food policy approach at all."

In conclusion, from what has been said so far, in Canada there is little chance of introducing a comprehensive nutrition and food policy covering every detail from production to consumption (see: MacDonald, 1979).[25]

In Canada because of the uncertainty surrounding NFP as a health promotion strategy [26] and the many vested interests in food-related areas, there has been a switch to solutions based purely on health education and regulatory processes (see: Sections 6.4.1; 6.4.2; 6.4.3).

6.4 Policy Measures in the Area of Nutrition after the FSC

After the failure of the FSC government influence on nutrition in Canada is restricted to nutrition recommendations and information and regulatory actions. In this section I shall consider these fairly direct government influences on nutrition policy,[27] and demonstrate that health promotion policy in Canada overemphasizes individual-oriented health education.

6.4.1 Nutrition Policy in Canada: The Emphasis on Educational Policy Means

In the Lalonde Report (Lalonde, 1974) nutrition was identified as a priority in strengthening health promotion programmes and policies. We have seen in Sections 6.1.1 and 6.1.2 that the Nutrition Canada Survey of 1972-73 and the Mustard Report of 1976, provided the basic data and rationale for the setting of nutrition recommendations for Canadians.

In 1977, the Canadian government adopted, on the basis of the Mustard Report, the set of recommendations illustrated below.[28]

a) The consumption of nutritionally adequate diet, as outlined in Canada's Food Guide;

b) A reduction in calories from fat to 35 per cent of total calories. Include a source of polyunsaturated fatty acid in the diet;

c) The consumption of a diet which emphasizes whole grain products, fruit and vegetables, and minimizes alcohol, salt and refined sugar;

d) The prevention and control of obesity through reducing

excess consumption of calories and increasing physical activity. Precautions should be taken that no deficiency of vitamins and minerals occurs when total calories are reduced.

This set of relatively moderate recommendations was designed for use in education programmes to assist the public in selecting an appropriate diet and thereby taking some responsibility for promoting personal health (see: DNH&W, 1977, "Nutrition Recommendation for Canadians"; Beare-Rogers, 1981; Murray and Rae, 1979). It has been noted that:

> "The recommendations are conservative; few are quantified. They are nutritionally sound, will have positive influences on all populations and are compatible with current trends in nutrition education. They are flexible, in that they allow for regional and local differences in food habits and practices. They stress moderation - that is cutting down rather than cutting out." (Murray and Rae, 1979)

About 50 National associations from the areas of health, fitness, education, food industry and agriculture, consumer, food service and restaurants were consulted. Generally, the response was encouraging although as expected some groups (e.g. beef associations) were concerned (Dr. H. Nielsen, DNH&W, [7] personal communication, 1982).

In 1978, the federal government took a further step in the formation, within the Dept. of National Health and Welfare, of a Health Services and Promotion Branch including a Health Promotion Directorate (see: Gov. of Canada, 1978, Dec. 12; see also: Cervinskas, 1982; Dr. H. Nielsen, personal communication 1982;). Nutrition programmes in the new branch aim mainly at nutrition and health education for

consumers.

The main objective of the work carried out by this branch and its directorate [29] is to increase the capacity of Canadians to adopt behaviour conducive to: (i) the enhancement and maintenace of good health; (ii) the avoidance of health risks.

In 1981, a long-term plan for activities in health promotion endorsed by the federal government Cabinet, identified nutrition as a priority area (see: Nielsen, 1983). Although the emphasis on nutrition education embraces the general population, the long-term plan indicated that primary target groups were set as: children and youth, women, the elderly, the handicapped, native people and people with low incomes. Four strategies for health promotion were elaborated in the federal government's 1981 long-term plan. These are:

(a) Informing and equipping the public: by providing information on lifestyle matters to encourage and assist Canadians in making decisions;

(b) Promoting a supportive social environment: by fostering an environment for social attitudes and customs that encourages people to adopt healthy lifestyles and avoid health risks [30];

(c) Promoting self-help and citizen participation: encouraging people to care for their own health on an individual basis or as part of groups who can provide mutual aid which can extend to the community; and

(d) Stimulating supportive health education and other programmes: by an encouragement of government health and social welfare agencies to integrate lifestyle concerns into their politics and programmes.

In an interview, it has been pointed out, by the Chief of Nutrition Programmes of the federal DNH&W, that amongst the Health Promotion Directorate activities, there are two

approaches for implementing the strategies outlined above:

> "The first involves operational activities such as direct communication with the public and the production of materials for use by health care workers, schools and community groups. The second involves financial payments to groups who are active in health promotion."[31] (Interview with Dr. Nielsen [7]) (Emphasis added)

Thus, in working towards the achievement of the goal of health promotion the emphasis in the Canadian approach to nutrition policy has been on educational activities and campaigns, directed mainly at individuals or target groups (e.g. pregnant women, children, etc.). Fig. 6.D aptly illustrates how government nutrition activities are based on nutrition information and health education policy means. The goals of these educational efforts can be summarized as:

a) To inform people about the role of nutrition in health and disease, and the ways in which they can protect and improve their health through dietary habits;

b) To motivate people to change their behaviour towards eating practices that are more conducive to improved present and future health status; and

c) To help people gain the skill necessary to achieve healthy diet given an increasingly complex food supply (see: Simonds, 1976; Alison, 1982; Cervinkas, 1982; see also interviews with Dr. Nielsen, Dr. Munro; Dr. Coffin; Ms. McKinley; Mr. Labonte; Dr. Baere-Rogers; Dr. Murray; Prof. Love; Ms. Bonds; Dr. McLean; Ms. Wheatley).[7] [10] [13] [32]

From what has been said so far, it can be deduced that in the Canadian model nutritional problems are seen to be primarily individual with respect to both origin and resolution.

In describing the Canadian approach to nutrition policy Prof. Love [13] maintains that:

> "(..) its emphasis on individual lifestyle

> change is, I think, a way of deflecting criticisms, interests, energy and money, away from more structural towards more individual issues. So the things that I would consider to be structural social factors (including the food distribution system, investments, advertising and even education) are deflected into consumer behaviour covering up the real issues (..) through a rather laissez-fair attitude or blaming the victim approach."

Labonte and Penfold (1981) in outlining the underlying assumptions of the Canadian approach to health promotion, point out its belief that inadequate nutrition behaviour arises from "perverse" patterns of human behaviour, where the ultimate aetiology is inherent in the lifestyles that people have chosen to lead. It is worth noting that such an approach is totally in line with the main messages of the Lalonde Report analysed in Chapter 4 (Section 4.2). The main activities in nutrition policy as a health promotion strategy have therefore been to provide information to lead to improvement in food knowledge, attitudes and motivation, in the belief that this will lead to change in behaviour. The analysis of nutrition programmes and services in Section 6.4.2 will confirm the individual-based approach chosen by Canada in pursuing health promotion goals.

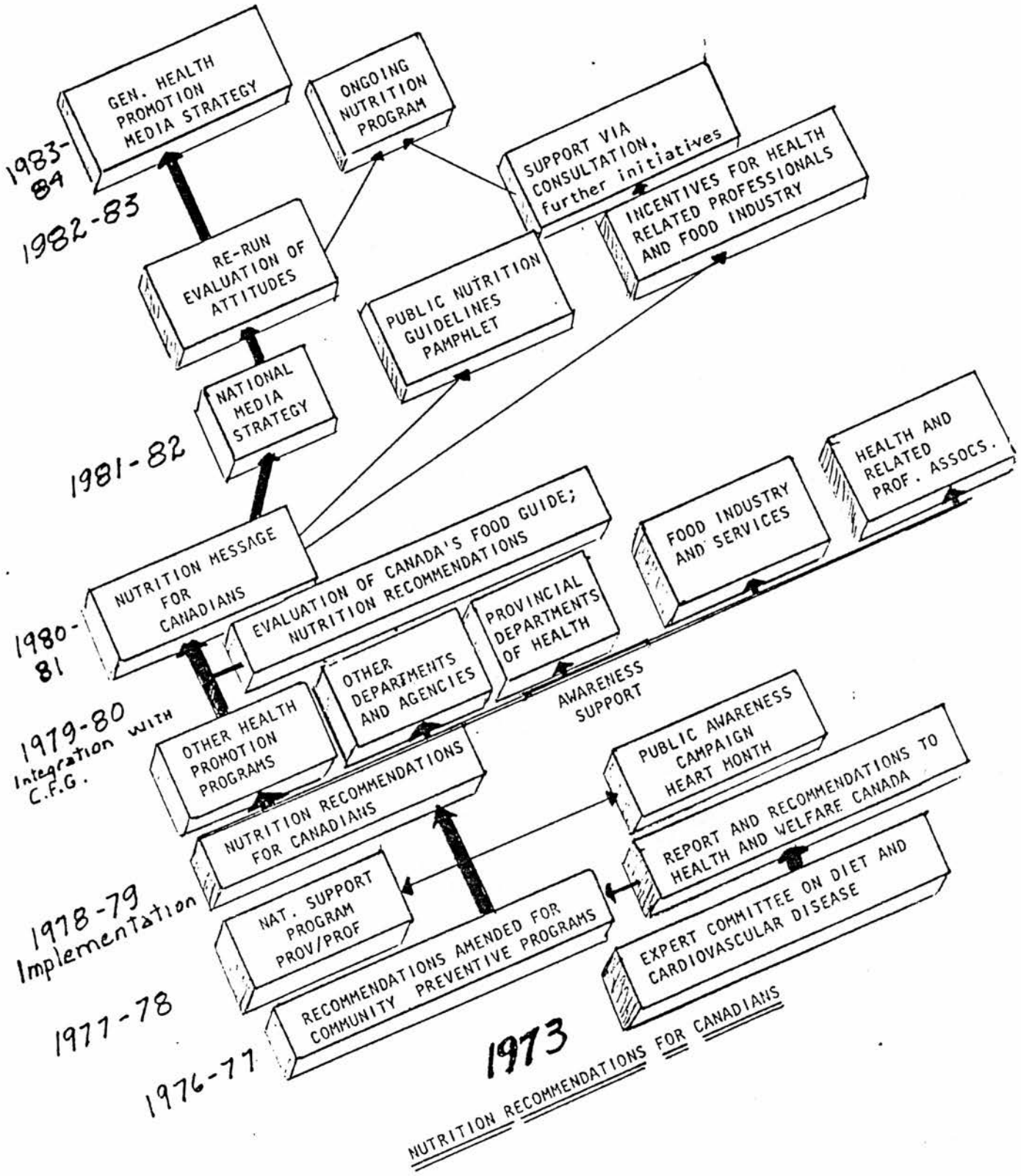

Fig.6.D - The Planning of Nutrition Policy in Canada

Source: Dr. H. Neilsen (Personal Communication, 1982)

6.4.2 Nutrition Programmes and Services in Canada

As jurisdiction on nutrition-related matters is scattered amongst several departments at federal, provincial and municipal levels, nutrition services are organized by a variety of governmental institutions, professional and volunteer groups, and also the food industry. It is impossible here to review the very many programmes and services with a nutrition component that operate in Canada at federal, provincial and municipal levels. The types of services which are most frequently found in Canada are outlined in Tab. 6.4 (see also: DNH&W, 1974; DNH&W, 1979, Sections III.I and III.4; 1982a).

There are several federal activities dealing with nutrition in lower-income groups, the elderly and native people.[33] The Guaranteed Income Supplement payable to low income pensioners, the Refundable Child Tax Credit and Family Allowances are intended to supplement income to help Canadians attain an "adequate" standard of living. However, these allowances are not necessarily used to achieve or improve nutrition (see: DNH&W, 1973a; DNH&W 1979; Love and Kalnins, 1984).[34] There has been no thorough evaluation of the effect of these federal government transfer payments on nutrition and general health status.

An attempt to link nutrition information and dietary changes with physical activity programmes has characterized much of the activity of the federal and provincial health departments and their health promotion branches since the

publication of the Lalonde Report. The rationale of these health promotion activities is that:

> "These programs are intended to increase awareness of the relationship between a proper diet and health and are (..) designed to prompt dietary changes. The nutrition component has often been introduced in conjunction with physical activity." (DNH&W, 1979, op. cit., p. 144)

The well-known "Participaction" programme is an excellent example of a Canadian health promotion programme aiming to influence the twin lifestyle factors of physical activity and nutrition. Other provincial examples are: the Saskatchewan "Feelin' Good" and "Health Promotion for Quebecers" (see: Saskatchewan Min. of Health, 1977; Gov. of Quebec, 1978). Provinces such as Manitoba, Alberta and British Columbia have combined exercise and dietary counselling into mobile fitness units with programmes aimed at the general public (see: Action British Columbia, 1973; YMCA, 1975; see also: DNH&W, 1979).

Two other initiatives sponsored by the federal government are the "Food Talk Programme" of the Dept. of Consumer & Corp. Affairs and the joint publication between the Depts. of Agriculture and National Health & Welfare of a 32-page illustrated booklet "Shopping for Food and Nutrition" (Depts. of Agric. and NH&W, 1980). These activities were designed to help low income families to get better value and nutrition for money spent on food (see also similar provincial initiatives such as: Saskatchewan Min. of Health, "Food Wise Good Buys"; British Columbia Min. of Health, 1981c).

Federal initiatives aiming at the elderly include a number

of projects relating mainly to nutrition information on food calories, cookbooks, meals-on-wheels programmes and even sponsorship of films on nutrition education (see: Health Education, 1977; DNH&W, 1982a).

Provincial governments have similar initiatives to those outlined by the federal government. Many of the provincial programmes aim at specific target groups such as pregnant women, children and the elderly. All provinces have educational programmes for pregnant women and recent emphasis is also on the importance of breast-feeding (see: DNH&W, 1979 Section II.6 and III.I; DNH&W, 1976a; British Columbia Min. of Health, 1981; British Columbia Medical JNL, 1973; McCarthy, 1983; Vickerson, 1977; Interviews with Dr. McLean; Ms. Wheatly [32]; see also: British Columbia Min. of Health, 1982; Canadian Paediatric Society, 1978).

As for nutrition education for the children, it has been pointed out in a government publication that:

> "The greatest potential for influencing lifestyle, towards life-long patterns that are conducive to maintaining health, lies in the education system. (..) The school management and the teachers must have sufficient knowledge or access to adequate resources to fulfil this role." (DNH&W, 1979, p. 92)

To this end, some shool boards (for example, in British Columbia, Montreal, Toronto and Calgary) have employed a nutritionist to coordinate nutrition education and school lunch operations.

A vast amount of nutrition information and teaching aids have been produced at federal and provincial levels. Films

for children such as "Think About It" or "Bonjour Comment Mangez-Vous?" and television messages about nutrition and fitness such as "You've Got The Power" have been made to counteract conflicting nutrition information (see: DNH&W, 1982a). Since the mid 70's there has been a growing production of nutrition material by various provincial health departments. Let it suffice here to mention some of the material produced by the Province of British Columbia, which has been particularly sensitive to this area (see the following publication by the B.C. Min. of Health, Nutrition Division: "Good Eating to Guard Your Heart", undated; "Fight Fat", undated; "Infant Nutrition Policy Guidelines", undated; "The Breakfast Book", undated; "Nutrition Eating for a Baby", undated; "Food for Little Folks", 1983; see also: Vancouver School Board, 1982).[35]

In conclusion, in Canada there has been a growing emphasis on nutrition, since the publication of the Lalonde Report. The efforts made by federal, provincial and municipal governments to publicizize the nutrition recommendations, outlined in section 6.4.1, have been mainly in providing nutritionally sound information messages materials.

In the light of my analysis, however, the following criticisms may be levelled at the Canadian approach to health promotion in the area of nutrition:

Firstly, the Canadian approach is rather over optimistic as regards the effectiveness of educational policy means. The assumption that by providing scientific information to

assist people in understanding the factors that promote health will automatically result in wise dietary habits and healthier lifestyles may be fallacious (see also: Section 6.5.2).

Secondly, and closely related to the previous point, in Canada there has been a chronic lack of evaluative studies on the effect of nutrition education, both in terms of "outcome evaluation" and "process evaluation". The great majority of studies carried out so far have mainly assessed the effectiveness and efficiency of particular educational techniques in reaching target groups; but they have overlooked the degree and duration of change in attitude and behaviour (for a review of evaluation studies of Canadian nutrition programmes see: Health Education, 1980, pp. 11-12; Brown, 1978-79; see also the study of Rae and Nielsen, 1980; DNH&W, 1978a).

Thirdly, the effectiveness of the approach chosen by Canada should also be evaluated as a result of its interaction with other sources of nutrition information. In Canada there are many professionals delivering nutrition recommendations and information apart from federal and provincial departments. Dieticians and nutritionists, nurses, physicians, social workers, educators and home economists, in addition to the medical profession, are all dealing with nutrition information. Moreover, nutrition information is commonly delivered by associations such as those representing the above mentioned professionals and also the Canadian Dental Association, The Canandian

Paediatric Society, the Nutrition Society of Canada, the Canadian Institute of Food Science and Technology. There are also a number of volunteer organizations for whom diet and nutrition are a major part of their activity (e.g. the Canadian Heart Fundation, the Canadian Diabetic Association). The food industry also plays an important role in providing nutrition information.

Thus, it seems that an evaluation of (i) the total impact of nutrition information; (ii) the degree of conflicting nutritional messages; and (iii) the degree of qualitative consistency in delivering nutritional messages should be given priority in rationalizing health education in Canada (see: Brown, 1978-79; see also: interviews with: Prof. Beaton; Prof. Love; Prof. McLean Dr. Murray; Ms. Bonds).[7] [13] [32]

Tab. 6.4 - Types of Nutrition Services in Canada -

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1. Education of the public

[Programmes offered through schools, community programmes, mass-media and individual counselling]

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2. Provision of therapeutic nutrition services

[Design of modified diets, prescription of diets and counselling of patient and families, preparation of modified diets in institutions]

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3. Provision of nutrition courses for health, education and social service personnel

[Nutrition included as a component in professional curriculum and in-service education in community, institutions and agencies]

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4. Design and implementation of specific research studies

[Evaluation of nutritional status, food practices, programmes for nutrition and dietetic services, and human nutrition requirements]

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5. Control of the nutritional quality of food

[Implementation of programmes and regulations related to nutritional quality of foods, quality control of the food supply of health institutions, food safety regulations in product development]

SOURCE: adapted from Ontario Council of Health (1975) and DNH&W (1979, Section II.6.1)

6.4.3 Government Regulatory Policy Means in Nutrition-related Areas

The previous two Sections have demonstrated the belief, within the Canadian approach to health promotion, that the individual's behaviour can be effectively influenced by education and by assuring the availability of appropriate information. We have also seen that within this perspective, the federal and provincial governments have provided leadership by issuing a set of nutrition recommendations and publishing relevant educational materials.

In addition to the emphasis on educational policy means, the Canadian approach incorporates the use of regulatory policy means. These constitute a body of federal and provincial legislation to regulate the nature of food products in terms of "quality", "safety", "processing", "labelling", "advertising", "grading" and "weighing". In this section I shall briefly analyse federal and provincial nutrition-related legislation by focussing on:

(i) consumer-oriented legislation; and
(ii) producer-oriented legislation.

1. Consumer-oriented legislation

There are seven federal acts and regulations which deal with food composition, safety, labelling, processing, packaging, grading and weighing:

(1) The Food and Drugs Act and Regulation;
(2) The Consumer Packaging and Labelling Act;

(3) The Weights and Measures Act;
(4) The Meat Inspection Act;
(5) The Canada Agricultural Products Standards Act;
(6) The Canada Dairy Products Act; and
(7) The Fish Inspection Act.

Generally speaking, these acts operate at the production and retail levels to protect consumers against health hazards, fraud, misrepresentation and poor quality. Thus, they prescribe the penalties for infractions (see: DNH&W, 1979, Section II.5.1.1; Dept. of Supply and Services Canada, 1977; Dept. of Agriculture, 1977, publication No. 1283; Dept. of Consumer & Corporate Affairs, 1975c). In Tab. 6.5 I have summarized the scope of these Acts.
From Tab. 6.5 we can see that regulations designed to control the nutritional content and quality of foods are covered by several departments.[36]

In considering these Acts, and particularly the Food and Drugs Act and Regulations, we must bear in mind that the nutrient content needs to be carefully regulated because of the decreasing use of traditional foods and the increasing consumption of more highly processed foods.[37] Three overlapping issues are crucial to the Canadian regulatory policy: (i) Fortification practices; (ii) Labelling; and (iii) Advertising.

These three issues have been addressed mainly within the framework of the Food and Drugs Act and Regulations and the Consumer Packaging and Labelling Act.[38] [39]

Nutrition labelling has recently become a very complex policy issue in Canada (see: DNH&W, 1983a; see also:

interviews with Dr. Munro; Dr. Coffin; Ms. Mckinley; Dr. Davey).[7][11]

New nutrition labelling proposals were developed in 1983 by the Health Protection Branch in collaboration with the Dept. of Consumer & Corporate Affairs and in consultation with the Health Services and Promotion Branch of the Dept. of Nat. Health & Welfare. The rationale of these proposals is based on the premise that consumers are better able to make wise food choices if provided with accurate information about the nutritional value of foods (DNH&W, 1983a).

The nutrition labelling proposals of the Health Protection Branch, if implemented, will be voluntary except when nutrition claims are made or when nutrients are added to foods. The Health Protection Branch's document containing the new nutrition labelling proposals argues that:

> "The existing Food and Drugs Regulations are not consistent with current expectations for nutrition labelling since their primary purpose is to control claims for the nutritional attributes of foods. As a result, the provision of valuable information is restricted, and in some cases prohibited, and, with few exceptions, claims do not entail the provision of additional information necessary to interpret the claim fully." (DNH&W, 1983a, p.1) [40]

These nutrition labelling proposals, although politically supported by the Depts. of Nat. Health & Welfare and Consumer & Corp. Affairs, have met with a lot of resistance in certain sectors of the food industry concerned about marketing repercussions and additional costs of their products (see: interviews with Dr. Munro; Dr. Coffin; Dr. Davey and Ms. McKinley).[7] [11] However, it seems to me

that the proposed nutrition labelling scheme will not necessarily remove some of the present regulatory restrictions on nutrition information on labels and advertisements. The following quotation from the Health Protection Branch's document (DNH&W, 1983a, p.29) confirms my doubts:

> "Conceptually, the proposed labelling scheme is voluntary. However, nutrition labelling would become mandatory when nutrition claims are made or when nutrients are added to foods on a voluntary basis. (..) Manufacturers may choose to discontinue making such claims or adding optional nutrients if they do not wish to bear the possible cost of additional nutritional labelling." (Emphasis added)

The fact that manufacturers can avoid providing information about nutritional quality of their food products seems to me to conflict with the aim of improving nutritional labelling in Canada. Morever, introducing a "voluntary" rather than a compulsory scheme would suggest the difficulty of developing regulatory policy means which may conflict with the many vested interests of the Canadian food industry.

2. Producer-oriented Legislation

The producer-oriented legislation, both federal and provincial, has concentrated on establishing and regulating marketing boards for almost every type of food produced in Canada.[41] Most boards act at the provincial level under the Agricultural Products Marketing Acts. However, specific federal legislation covers the Canadian Wheat Board, the Canadian Dairy Commission and the Salt Fish and the Freshwater Fish Marketing Boards. Products such as eggs and turkey meat are also under federal jurisdiction.[42]

The main goal of these marketing boards is to benefit the producer in terms of stability of incomes (see: Haack et al., 1981; Loyns, 1977, April 26). This is partly because of the failure of the Food Strategy for Canada (see Sections 6.3.1 and 6.3.2) and partly because of the fact that these Marketing Boards (see: Harrowsmith, 1982), nutritional or health criteria play a very marginal role (if any) in shaping Boards' policy.[43]

To sum up, nutrition has very little significance in the rationale of producer-oriented policy means (in contrast to the Norwegian NNFP; see next Chapter). Thus, this section re-confirms the conclusion reached in Sections 6.3.1 and 6.3.2, namely the lack of "facilitating" policy means such as producer incentives and subsidies, to direct the flow of action towards health goals.[44]

Tab. 6.5 Regulatory Action: Consumer-oriented Legislation in Canada

1. The Food and Drugs Act & Regulations

** Administered by: The Depts. of National Health & Welfare and Consumer & Corporate Affairs

[a) Dept. of NH & W: (i) health hazard to consumer
b) Dept of Con. & Corp. Aff.: (ii) economic fraud
The Dept. of Con. & Corp. Affairs also administers the legislative components dealing with packaging, labelling, food composition, fraudulent practices and misleading food advertizing.]

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2. The Consumer Packaging and Labelling Act
3. The Weight and Measures Act

** Administered by: The Dept. of Con. & Corp. Affairs

[To guarantee information such as net quality, product name, name and address of manufacturer and/or distributor.]

[To ensure the accuracy of all industrial weighing and measuring devices (including those of the food industry).]

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4. The Meat Inspection Act
5. The Agricultural Products Standards Act
6. The Dairy Products Act

** Administered by: The Dept. of Agriculture

[To regulate processing and handling and the standards for compositions, packaging size and marketing of certain foods.

Provincial inspectors are responsible for all food produced and sold within a province, while foods shipped from one province to another must be examined by federal inspectors]

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7. The Fish Inspection Act

** Administered by: The Dept. of Fishery & the Environment

[The regulations cover products at the import, export and interprovincial level.]

SOURCE: Dept. of Consumer & Corporate Affairs (1975, May; 1977, June); Dept. of Agriculture (1977, Pub. No 1283); Dept. of National Health & Welfare (1979, Section II.5.1.1; 1982d).

6.5 Innovation and Uncertainty in the Canadian Approach to Nutrition Policy as a Health Promotion Strategy

In this final Section I shall consider two important, although all too often overlooked, elements in policy-making related to health promotion:

(1) the degree of innovation in the policy process and policy means adopted; and

(2) the degree of uncertainty related to the policy-means used by the Canadian approach to health promotion.

6.5.1 The Canadian Approach to Health Promotion: Which Kind of Innovation?

There is no doubt that an impressive amount of educational material has been published by the Federal Dept. of Health & Welfare and its Health Promotion Directorate and other federal and provincial departments. Techniques for approaching the public or presenting educational materials are also quite innovative in the area of health education.[45]

Nevertheless, it seems to me that the overall Canadian approach to health promotion is rather disappointing when it comes to innovation (or rather, lack of it). Its lack of innovation can be seen by looking at three general evaluative criteria of innovation in health promotion policy formulation and development. These are:

(a) the conceptualization of "health promotion" present in the approach;

(b) the credibility of results of the policy chosen; and

(c) the policy process identified to bring about the desired goals.

The unsatisfactory conceptualization of the term "health promotion" has already been noted, in Chapter 4 Section 4.3, dealing with the individualist perspective inspiring health promotion policies in Canada after the publication of the Lalonde Report. The debate between individualist perspectives (which focus on individualist lifestyles as the major cause of health problems), and structuralist ones (which emphasize the social causation of illness and disease) has not found its proper place in inspiring Canada's health promotion policies. In Section 6.3.3 I have suggested that a more structuralist approach to health promotion in Canada is, at least in the foreseeable future, rather infeasible, and politically even undesirable because of the number of vested interests in the area of nutrition and food policy.

The criterion of the "credibility of results" of the approach chosen is closely related to both the first and third evaluative criteria mentioned above(see also: Sections 6.3.3 and 6.3.1; 6.3.2). Mustard (1978-79, pp. 16-17) gets to the heart of the matter when he argues that:

> "(..) if one takes the field of nutrition, it would be very difficult for any policy to be enacted that would be effective in reducing the incidence of cardiovascular disease unless it were done under the umbrella of a national nutrition policy involving all the key groups that influence the food that is available for our consumption. Promoting a nutritious diet without making the foodstuffs easily available and identifiable for the consumer will not take us very far in changing our habits. (..) How many of us know whether the policies of Agriculture Canada are primarily related to economic goals with little concern for nutritional goals?"

The fact that nutrition behaviour results from complex interacting forces (see: Chapter 2, Section 2.2), and that the adoption of healthy practices is often inhibited or rendered impossible by social, economic or situational conditions in a person's environment is imperfectly acknowledged in the Canadian approach.

Cervinskas (1982, p. 8) in her critique of nutrition programming in Canada claims that:

> "By limiting messages to information about the immediate cause of nutritional problems (i.e. poor food selection) and emphasizing change in behaviour through change in knowledge, attitudes and motivation, the environment in which nutrition behaviour occurs is ignored. By rejecting considerations of the environmental forces that condition nutrition behaviour, the lifestyle approach has presented only a limited, fragmented view of reality, narrow in analytic scope and, hence, in its approach to the treatment of the problem of poor food habits."

A number of studies (Love and Kalnins, 1984; Labonte and Penfold, 1981; Edwardh and Miller, 1982; Lilley, 1982; Alison, 1982; Cervinskas, op. cit.) have also stressed the lack of convincing effort, within the Canadian approach, to address the effect of poverty and social development on nutrition.[46] These authors have also argued that a more structuralist approach would have led to an examination of the effects of the food industry on consumption behaviour and present dietary patterns.[47]

Finally, as for the innovative aspects (if any) of the policy process set in motion in order to implement nutrition-related decisions we could identify two periods:

a) the first period covers the late 70's when an attempt to

formulate a food strategy for Canada [FSC] was made; and

b) the second period, following the failure of the FSC, covering the early 80's, which is characterized by a reinforcement of the emphasis on educational and regulatory processes.

In both periods, and, of course, particularly in the first one, great importance was attached to a consultative process. However, as shown in Section 6.3.1, the policy area covering nutrition in Canada is highly fragmented. Many governmental and non-governmental bodies have jurisdiction over this policy area both at federal and provincial level. As a result of this, the decision-making process is very intricate.[48] The emphasis on the consultative process (although politically entirely understandable) with its tendency to "muddling-through", combined with the different goals of the agencies involved, suggest that for Canada it will be extremely difficult to overcome the shortcomings of a "disjointed incrementalism". Disjointed incrementalism is caused by the absence of fundamental goals and by a complex decision-making process (see: Chapter 9, Section 9.1.2). Innovation in such an approach must be a marginal element to be subject to short-term goals (which are very likely to be of economic nature, particularly in periods of economic recession).

6.5.2 The Canadian Approach to Health Promotion: Uncertainties

Uncertainty exists as to the total impact of the educational and regulatory measures taken, and their specific effectiveness and efficiency. As possible policy-making approaches for coping with uncertainty will be dealt with in Chapters 9 and 10, here I shall indicate only some major areas where uncertainty has been either consciously or unconsciously underestimated.

Firstly, the Canadian approach emphasises an individualistic perspective to promote dietary change. Individualist perspectives are, of course, strongly supported within the liberal ideology present in North America (see for example: Marchak, 1975). Criticisms from advocates of a structuralist perspective alert us to the dangers of relying too heavily on individual-oriented policy means (see: Section 6.5.1). Thus, as neither perspective is likely to have a monopoly on the truth, uncertainty could be reduced through a creative synthesis of such perspectives.[49] However, experimentation along these lines is lacking in Canada. Thus, the Canadian approach does not satisfactorily attempt to minimize the total uncertainty related to the impact of its chosen strategy in health promotion.

Secondly, the rationale of the use of individual-oriented educational policy means fails to give evidence, for example through carefully designed evaluative studies, of the fact

that in Canada:

(i) dietary habits are a matter of individual choice;

(ii) increasing knowledge affects health behaviour, and that people have the means at their disposal to put in practice advice and recommendations; and

(iii) people are able to apply newly gained knowledge about nutrition and food selection and preparation in their daily activities and over a long time.

In order better to cope with this type of uncertainty, the educational approach chosen by Canada should incorporate evaluation of the basic assumptions, values, beliefs and biases contained in its lifestyle change programmes (see: Cervinskas, 1982). Generally speaking, the more flexible a policy-making approach is, the more likely it will be to incorporate the feedbacks of the evaluation procedures carried out (see: Chapter 9). However, it is important to note that "flexibility" here refers not only to the internal flexibility of the approach chosen, but also to the flexibility of the social, cultural and economic context within which such an approach operates. My analysis has however shown that, in Canada, the cultural and economic structures of nutrition and food-related areas are rigid (see: Section 6.3.3).

Thirdly, sources of uncertainty have also been overlooked as regards the types of regulatory policy means used at present (see: Section 6.4.3). The lack of timing in re-evaluating existing food regulations (e.g. food safety, labelling, and so forth) may have actually increased the uncertainty of the impact of these nutrition-related policy measures.

The work of Cheney (1981) offers a stimulating analysis of

the present type of Canadian food regulations as obstacles to success in nutrition intervention programmes. In his study Cheney (1981, pp. 555-556) argues that:

> "Existing food regulations may often seem "behind the times" and not in tune with the needs of society at a given time. (..) It must be remembered that in order to justify a revision of the regulations and the costs that may be incurred by industry, it is necessary to carry out extensive consultations and to accumulate a large body of evidence to substantiate both the need for, and the direction of, such change."[50]

Furthermore, apart from the uncertainty related to food regulation pertaining to a given food product, regulatory food measures are not equipped to regulate sets of products in relation to each other. In this case the sum of nutritional information provided by the various food's labels is the only source of nutrition information. However, the capability of people to discriminate and understand the resulting aggregated information remains uncertain.[51]

6.6 Conclusion

From what has been said in this Chapter we can affirm that the general trends in the Canadian approach to nutrition policy as a health promotion strategy appear in the early 80's to be characterized by the following elements:

(1) The policy is oriented mainly towards persuasion through the use of the mass-media techniques used in marketing and advertizing; and

(2) Increased commitment to food labelling and other regulatory means in order to assist Canadians in making wiser nutritional choices.

Like the rationale of the Lalonde Report, the approach chosen in the area of nutrition pins its faith on the ability of knowledge, harnessed to collective efforts and commitment, to produce desired changes (see: Chapter 4, Section 4.2; see also Robertson, 1983a; 1985; Ziglio, 1983e). The overall emphasis on health promotion lies in education and information means which, in my view, have not necessarily direct force (see: Ringen, 1979). These policy means rely heavily on the "good will" of those who are the subject of health education programmes. Uncertainty about the impact of the chosen policy means used in the area of health promotion has only been marginally addressed.

To sum up, similar criticisms made of the Lalonde Report can be applied here, and in particular:

a) the emphasis on "soft" persuasion-oriented approaches to lifestyle change may obviously be attractive to individualistic societies such as Canada (see: Chapter 4; Section 4.2; see also: Love and Kalnins, 1984; Labonte and Penfold, 1981; Robertson, 1983a; 1985);

b) The difficulty in linking nutrition policy with food and agriculture policy could imply that Canada is attempting to transcend the interests of the various groups involved,

through proposing increased health and nutrition as a national (and "neutral") goal (see: Robertson, 1983a; Ziglio, 1983d); and

c) This approach appears to be politically and methodologically rather naive - biased in favour of education and regulatory policy means.

NOTES

[1] The important impact of these reports is also confirmed in the interviews with Dr Nielsen, Dr. Campbell; Dr. Beare-Rogers; Dr. Murray and Prof. Beaton (see note [7]).

[2] Between September 1970 and December 1972, approximately 13,000 Canadians of all ages were surveyed. Indians and Eskimos (nutritionally vulnerable groups in Canada) represented about 10 and 2 per cent of the total survey sample respectively. Results were recorded separately for the general population, for the Eskimos and for the Indians. The criteria used to judge nutritional status were the presence or absence of clinical signs of deficiency, the biological assessment of nutrients or related compounds in the blood and urine, and the intakes of calories and nutrients calculated from the record of food intake (covering 24 hours). Standards for interpreting the results were established prior to the survey by a committee of experts (see: DNH&W, 1973a; see also DNH&W, 1979, Section II, pp. 27-28).

[3] The Ponderal Index was used in order to identify overweight adults. This index is the ratio of height (in inches) and the cube root of weight (in pounds) ans is used as a measure of fatness. The Report on Nutrition and Health (DNH&W, 1979, Section II.2.2, p.28) points out that the first national Canadian survey of height, weight and skinfold measurements, conducted in the late 50's (see: Pett and Ogivie, 1957) reported more or less a similar prevalence of obesity.

[4] The reported daily caloric intakes were not in themselves enough to account for such excesses in weight (DNH&W, 1973a). It has been put forward that a sedentary lifestyle and/or small caloric excesses over extended periods of time may have contributed to those findings (see: DNH&W, 1979; see also: Chapter 2, Section 2.1.1).

[5] The Mustard Report points out also that atherosclerosis is responsible for over 80 per cent of cardiovascular deaths and coronary atherosclerosis accounts for half of these.

[6] The Report points out that the dietary guidelines illustrated in Section 6.1.3 do not apply to patient, therapeutic or infant diets. The Mustard Report gives recommendations for these specific groups and also for patients at high risk for coronary heart disease (see: DNH&W, 1976c, p.82).

[7] Dr. K. Murray, former Director of the Bureau of Nutritional Sciences of the Health Protection Branch of the DN&W. Interview conducted in Ottawa, June 7, 1983.
Dr. H. Nielsen, Chief, Nutrition Programs of the Health Promotion Directorate, DNH&W. Interview conducted in Ottawa, June 9, 1983.

Dr. J. Beare-Rogers, Chief, Nutrition Research Division of the Bureau of Nut. Sci., DNH&W. Interview conducted in Ottawa, June 7, 1983.
Dr. I. Munro, Director General, Food Directorate of the DNH&W. Interview conducted in Ottawa, June 8, 1983.
Dr. E. Coffin, Director, Bureau of Nut. Sci., DNH&W. Interview conducted in Ottawa, June 8, 1983.
Mr. I. Campbell, Food Scientist of the Health Protection Branch of the DNH&W. Interview conducted in Ottawa, June 9, 1983.
Prof. G. Beaton, Dept. of Nut. Sciences, University of Toronto. Interview conducted in Toronto, May 1983.

[8] It is striking that the Mustard Report avoids asking why health goals are overriden by short-term economic considerations in Canada. The Report underestimates also the vested interests of powerful sectors of industry and agriculture in bringing economic and agricultural policies in line with health promotion policy.

[9] It can be seen that the recommendations contained in the Mustard Report resemble the basic features of the Norwegian NNFP (see: next Chapter). It is strange, however that the Report, in outlining the few experiences of nutrition policy in western industrialized countries, does not mention the NNFP. On the contrary, it sees the Swedish model as an interesting example of nutrition policy as health promotion strategy (see: National Board of Health and Welfare, Sweden, 1972). It is worth noting that the Swedish approach to nutrition policy of the 70's, is not as well structured as the Norwegian one, but it is, like the majority of health promotion models, based on individual-oriented health education.

[10] Dr. B. Davey, Associate Director, Food Markets Analysis Division. Interview conducted in Ottawa, June 8, 1983.
Ms. K. McKinley, Economist of the Food Policy Unit of the Dept. of Consumer & Corporate Affairs. Interview conducted in Hull, Quebec, June 9, 1983.

[11] The key importance of these two elements is also supported by the interviews conducted with Dr. Davey; Dr. Murray; Dr. Campbell; Ms. McKinley and Mr. Labonte (see: Notes [7];[10];[13]).
Other factors which also contribute, directly or indirectly, to raising the question of nutrition and food were related (i) marketing and food aid; (ii) processing, distribution and retailing; (and, of course, the rising concern about the link between diet and health discussed in Section 6.1). (For an exploration of these factors see: Gov. of Canada, 1978; Feb. 13; Dept. of Agriculture, 1977, Report on Orientation of Canadian Agriculture, Vol. 1, Parts A & B; Vol. II; III; IV; see also: Haack et al., 1981; Williams and Young, 1981; Gilson, 1979; Lee, 1979; Kraft, 1979; Hawkins, 1979).

[12] For example, the annual changes in net farm income in the years preceding the publication of the document "A Food Strategy for Canada", have varied from -22 per cent in 1966 to +74 per cent in 1972 (see: Dept. of Agriculture Canada,

1977, "Orientation of Canadian Agriculture", Vol. I, Part A, Tab. 4.20).

[13] Prof. R. Love, Director of Master Programme in Health Promotion, Dept. of Behavioural Sciences, University of Toronto. Interview conducted in Toronto, June 23, 1983.
Mr. R. Labonte, Community Health Educator, Dept. of Public Health of the City of Toronto. Interview conducted in Vancouver, June 1, 1983.

[14] To explore these trends further see: Dept. of Agriculture Canada (1977, "Orientation of Canadian Agriculture", Vol. III, pp. 101-104 and Fig. 25).

[15] For an analysis of these guidelines see: Government of Canada (1978, Feb.13). For a more technical exploration of the various issues involved in some of the policy areas in Tab. 6.2, see the contribution of authors such as: Lee; Gilson; Kraft; Hamilton; Sabry; Williams; Hiscocks; Stanbury, and Hawkins in the "Proceeding of the Agricultural and Food Marketing Forum" (R.M.A. Loyns ed., 1979). An idea of the vested interests in this complex area can be obtained from Gov. of Canada (1977, Dec. 5-6 and 9).

[16] For a discussion of alternatives such as: (i) "A Modified Free Market System"; (ii) "A Supply Management and Administrative Pricing System"; and (iii) "A Public Utility System", see: Gilson (1979); Lee (1979); see also: Hawkins (1979).

[17] On the other hand if priorities are clearly to the advantage of health consideration the magnitude of short-terms policy implications on the political and economic areas may reduce the desirability and feasibility of such a policy at a very low level.

[18] It could also be hypothesized that more balanced food prices during the early 80's contributed to diminuish the importance of food as a policy issue. Fig 1 in Dept of Ag (1982) shows that in the early 80's the increase in food prices relatively modest in comparison with the increase of CPI. (This hypothesis is also supported by Mr. Labonte [13], interviewed in Vancouver on June the 1st., 1983).

[19] It is export-oriented in two significant areas: grains and oilseeds; and fish. However, Canada is a net importer in a number of areas such as fruit, vegetables and sugar (see: Dept. of Agriculture, 1981, "Canada's Agri-Food System".
In 1980, the value of agricultural exports reached 7.9 billion dollars, while agricultural imports were valued at 5.1 billion dollars. By and large, the commodity share of agricultural exports and imports has not changed significantly in the last 10 years (see: Dept. of Agriculture, op. cit.).

[20] These organizations were: The Canadian Federation of Agriculture; The Meat Packers Council of Canada; The Canadian Food Processors Association; The Consumer Association of Canada; The Fisheries Council of Canada; The

Canadian Restaurant of Food Service Association; The Retail Council of Canada; The National Dairy Council of Canada; The Grocery Products Manufacturers of Canada.

[21] These workshops dealt with (a) Income Support and Stabilization; (b) Trade Policy; (c) Research, Information and Education; (d) Marketing and Food Aid; (e) Processing, Distribution and Retailing; (f) Consumer Concern.

[22] A full report of the Conference can be found in Gov. of Canada, 1978, Feb. 22-23.

[23] It is worth noting that when the Committe was established it was agreed that a "Nutrition Impact Statement" should be included for decision of regulatory and, where warranted, also of non-regulatory nature before reference to Ministers (see: Government of Canada, 1978, Dec. 12, p. 10).

[24] These experts cannot be named here for reasons of confidentiality.

[25] It is often argued that an integrated NFP can be applied more easily to developing countries or to times of extreme emergency, such as a war; or to developed countries with an economy negatively affected by food imports. Of course, this perspective is associated with the values of capitalist societies where short-term economic goals usually override health and non-economic welfare criteria. Canada, undoubtedly, belongs to this category.

[26] The following quotation form the work of MacDonald (1979, p.78) helps us understand why on the excuse of the presence of uncertainty the desirability of a NFP is ruled out in Canada (at least for the near future):

> "One problem of attempting to develop a national nutrition policy in a technologically developed country such as Canada comes from the fact that most of the concern is centred on health problems. Problems for which diet is only one of a group of predisposing factors. Although the problem may be one of the ready availability of quality food at moderate cost, it is difficult to envisage much success in alleviating a social problem with a policy designed to cover production, processing and retailing in addition to consumption".

As the above reasoning is widely held in Canada, it would therefore seem unrealistic for Canada to commit herself to an all-encompassing scheme of the type implied by a NFP. It is not surprising then that the possible interactions among the producers, processers, distributors, retailers, federal and provincial governments and consumers, can produce only general agreements on two food and nutrition policy measures: <u>educational</u> and <u>regulatory</u>.

[27] However, it must be said that government influences on nutrition can also occur indirectly. For example, income

maintenance programmes affect Canadians' food-purchasing capacity; fisheries, agricultural and food industry development programmes affect the availability, price and quality of foodstuffs.

[28] It is worth stressing that the nutritional recommendations adopted by the government have been toned down compared to the original recommendations set by the Mustard Report (see: Section 6.1.3).

[29] Of course, other institutions and agencies are involved in nutrition education programmes and other nutrition-related measures, such as the Health Protection Branch of the Dept. of Nat. Health & Welfare and its Food Directorate; The Dept. of Consumer & Corporate Affairs and other governmental and voluntary organization (see: Section 6.4.2).

[30] The way in which the term "environment" is conceptualized in the Canadian context is different from the same term used, for instance, in Norway (see: next Chapter). In Canada the objective of "promoting a supportive social environment" refers mainly to the need to narrow the gap between nutrition information available and attitudes and behaviour towards food, mainly through the use of advertising techniques (see: Nielsen, 1983). In Norway the term social environment refers to intersectoral action (in areas such as agriculture, fisheries, pricing policy, education, etc.), in pursuing the NNFP's goals (see: Chapter 7).

[31] The progammes for 1980-82 funded 12 nutrition projects to a total of approximately a quarter of a million dollars (see: Nielsen, 1982).

[32] Prof. H. McLean, Dept. of Nut. Sciences, University of Toronto. Interview conducted in Toronto, June 13, 1983).
Ms. C. Bonds, Nutritionist, Division of Health Promotion, Dept. of Public Health, City of Toronto. Interview made in Toronto, June 13, 1983.
Ms. S. Wheatley, Former President of Registered Nurses' Association of Ontario. Interview conducted in Toronto, May 25, 1983.

[33] The nutritional status of Canadian Indian and Eskimo populations is of particular concern. The degree of severity of nutritional deficiency in these populations was one of the major results from the National Nutrition Survey of 1972-73 (see: Section 6.1.1). Federal-provincial nutrition programme activities for these ethnic groups have been rather sporadic, consisting mainly of food fortification. The results of these efforts have not effectively changed the picture of nutritional status of these minority groups. One of the major problems in planning nutrition programmes for the Eskimo and Indian communities lies in providing programmes which can be culturally acceptable and integrated with other health and social measures (see: DNH&W, 1975j; 1975l; Sabry, 1979; Northern Medical Research Unit and DNH&W, 1980; Hoffer et al., 1981; The Lancet, 1983, May 21).

[34] It has been shown that nutrition is often not given a high priority by low income families. Items such as rent, transport, heat and electricity, are of major concern for Canadian low income families (see: DNH&W, 1979, Section II.6.3.1; Love and Kalnins, 1984; DNH&W, 1973b). The money remaining for food tends to be spent first on bread, potatoes, grain and beans, then on meat and dairy products, and lastly on fruit and vegetables (DNH&W, 1973b).

[35] For an overview of school health education in the various Canadian Provinces see: Health Education (1982, pp. 8-10).

[36] The work of the Food Directorate in the Health Protection Branch of the Dept. of National Health and Welfare and that of the Dept. of Consumer and Corporate Affairs deserves particular attention. The Food Directorate was formed in August, 1972, from the former Food and Drug Directorate, as part of the new Health Protection Branch. The Food Directorate is responsible for developing regulatory policies relating to the safety and nutritional quality of foods sold in Canada. These responsibilities are carried out under the authority of the Food and Drugs Act and Regulations (see: DNH&W, 1982d; see also: Interviews with Dr. I. Munro; Dr. D.E. Coffin.[7]

[37] The work of Warnock (1978) points out the large increase since World War II in the production and consumption of processed food. The studies of Aylward (1975) and Cheney (1981) focus on the importance of food regulations, but also demonstrate possible drawbacks of the use of food regulations in pursuing nutritional goals.

[38] Generally speaking, the main purposes of fortification measures are: (i) to replace nutrients lost during processing; (ii) to ensure that the nutritional quality of substitute foods is equivalent to that of foods being replaced; and (iii) to correct nutritional deficiencies in a segment of a given population.
For an exploration of this subject in the Canadian context see: Whelan et al., (1976); Sabry (1979); Cheney (1981); see also: DNH&W (1979, Sections II.5.1.1. and III.2.1).

[39] Advertising is mainly controlled by the Food Drugs Act while that part of advertising which includes markings on packages is mainly under the Consumer Packaging and Labelling Act. Many of the criticisms of the present regulatory policy pertaining to labelling can also be applied to advertising (see: DNH&W, 1983, Jan. 31; DNH&W, 1979, pp. 117-118).

[40] For background on the drawbacks of the present Food and Drugs Act and Regulations see: DNH&W (1983, Jan. 31, Section 3); see also a series of News Release from the Dept. of Consumer & Corporate Affairs (1973, Nov. 7); (1980, Sept. 26); (1981, June 26); (1982, Aug. 28); (1983, Feb. 18). The work of Cheney (1981) is also relevant as a critique of the rigidity of present regulations.

[41] At the present there are over 100 Marketing Boards,

falling into 3 categories:
The negotiating type, which includes more than 90 per cent of existing Canadian Boards. This type is involved in annual negotiations of minimum prices and the terms and conditions of sale between producers and buyers;
The promotional type, which is very rare in Canada, its activities being limited to collecting fees from producers for promotional or research purposes;
The agency type, which is concerned with the marketing of agricultural products including price-setting, supply management, and the direct sale of products. This type is also very rare in Canada (examples are the Milk and Egg Boards) (see: DNH&W, 1979, pp.72-73; Loyns, 1977, April 26; Haack et al., 1981; Harrowsmith, 1982).

[42] In fact, the Canadian Egg Marketing Agency and the Turkey Marketing Agency were established under the federal Farm Products Marketing Agency Act.

[43] Although producer-oriented regulatory policy means in Canada are mainly designed to improve marketing policies, we cannot deny that the combined effect of these regulatory actions may have an influence on nutrition (e.g. food prices, food availability, and so forth).
Other policies which can directly or indirectly affect nutrition either in terms of food prices or food availability are, for example, the Canadian trade policy and its import and export components. However, these policies are not considered here because they are not directly governmental actions aiming to change dietary habits of the Canadian population, but focus on other goals.

[44] To be fair subsidies are not totally unheard of in Canada. There have been some consumer subsidies over the years. However these subsidies do not form part of an overall strategy including health criteria, as in the Norwegian NNFP (see: Chapter 7). Generally speaking, the few consumer subsidies granted in Canada were intended to control food prices. However, the items subsidized have not always been the most desirable for a change in dietary habits (e.g. butter). During the 70's two consumer subsidy programmes were established (in 1973). These were: The Two Price Wheat Act and the Skimmed Milk Powder Subsidy Programme. The former was terminated in Janauary 1979, and the latter in February 1978 (see: DNH&W, 1979, pp.74-75; see also: The Toronto Globe and Mail, 1978, March 1).

[45] The "Canada's Food Guide"; the "Canada's Food Guide Handbook", and many other materials helping Canadians selecting food and promoting dietary changes, have been judged to be of high quality and of practical use (see: Health Education, 1980; Rae and Nielsen, 1980). It is also worth stressing that this material is based on Canadian dietary standards which are rather different from the nearby U.S.A.. In fact, the Canadian dietary standards, revised recently in 1975 and 1982, appear to be more flexible than the American ones (see: DNH&W, 1975; 1983; Murray, 1983; see also: Interviews with Dr. K. Murray and Dr. Beare-Rogers).[7]

[46] Despite the relative affluence of Canada, findings by the National Council of Welfare (1982) indicate that 10 per cent of Canadian families live below the poverty line. Poverty is particularly serious in families with four or more children and single-parent families (see also: Statistics Canada, 1976; Love and Kalnins, 1984; Forcese, 1980; Edwardh and Miller, 1982). Love and Kalnins (op. cit.) point out that even families which receive social assistance may not be able to use it effectively to improve nutrition. Furthermore, as Edwardh and Miller (op. cit.) show, stores in low-income neighbourhoods often sell poorer quality food than in wealthier ones; they note that the poor are also less likely to be able to compare shops and are obliged to purchase the food available in stores that may have little choice and high costs (see also: Love and Kalnins, op. cit.).

[47] Authors such as Warnock (1978) and Cervinskas (1982) argue that the food industry is dominated by multinational agri-business corporations. According to these authors (see also: Labonte and Penfold, 1981), this is an oligopoly characterized by both horizontal and vertical integration which influence: (i) the type of food commodities produced and hence available; (ii) the processing methods used; (iii) the distribution marketing, and retailing of food. According to Warnock (op. cit.) the impact of this type of food industry constitutes a market control which influences patterns of consumption, food preference and habits.

[48] It will be clear from what has been said in this Chapter that the Canadian policy-making process related to nutrition and food matters is much more intricate than the Norwegian one (see: Chapter 7).

[49] Love and Kalnins argue that if by way of explication the two perspectives are presented as polar opposites composed of homogeneous groups supporting their positions respectively, then intense conflict between them would be predictable (see also the relevant work of Druckman and Zechmeister, 1970; 1972). Conversely, if groups supporting the different perspectives are neither as polarized nor as homogeneous in their respective positions, then they could develop cross-cutting interests that will reduce the ideological polarisation and conflict between them (see: Love and Kalnins, op. cit.; Aubert, 1963; Zechmeister and Druckman, 1973; Jackson and Ziglio, 1985).
Thus, in the future, conflicts in Canada could be either exacerbated by competition for scarce resources (e.g. programme funds; research grants; leadership in planning and programming or control over health educators teaching curriculum, etc.), or camouflaged to fit criteria for desirable allocation of resources.

[50] Cheney (1981) gives the example of a request by consumers that the amount of sugar in food products be declared on the label. Before any such labelling amendments could be contemplated, the following questions would have to be answered:
(i) is there legislative authority to require sugar labelling of foods?

(ii) what labelling format is best understood?
(iii) how should sugar be legally defined?
However, in the case of sugar, different sources of uncertainty, such as those listed below, may be obstacles in food regulation revisions:
a) what is the exact nature of health concern?
b) are all sugar-containing foods equally cariogenetic?
c) is the risk to health posed by sugar sufficient to justify the cost of such labelling?

[51] Of course, such an uncertainty might be reduced as a result of effective health education programmes in conjunction with food regulation measures.

CHAPTER 7.: ANALYSIS OF THE NORWEGIAN NUTRITION AND FOOD POLICY [NNFP]

The proposal to implement a national nutrition and food policy in Norway was unveiled at a press briefing given (in November 1974) by the Norwegian delegation to the World Food Conference held in Rome. However, it took a full year before sufficiently detailed plans were submitted. According to Blythe (1976, May, p.278)

> " (..) The motive of the Norwegians in jumping the gun was honourable enough: they wanted to make an unequivocal statement to the conference that the diet of developed countries should not be taken as a model of satisfactory nutrition, and to show that at least one developed country was prepared to back up pious advice with action."

Norway was the first of the Western developed countries to establish a comprehensive nutrition and food policy in peace-time. The attempt to obtain: (i) a substantial reduction in dependence on imported food products and animal feed in order to strengthen domestic agriculture; (ii) a higher degree of self-sufficiency; and (iii) the deliberate use of agriculture as an instrument of social policy (in improving economic and social conditions in rural areas, and thus slowing down the drift of the rural population to urban areas) represents an undeniably radical approach to nutrition and food policy. The NNFP is therefore a highly structured approach to nutrition and food matters; and differs from the individualistic perspective characterizing health promotion in Canada.

In this Chapter, I shall firstly analyse the reasons why

food and nutrition became an issue in Norway. In Section 7.2 I shall concentrate on the analysis of the formulation of the NNFP.

Sections 7.3 and 7.4 contain the analysis of the impact of the NNFP after the first stage of its implementation; while Section 7.5 focuses on the uncertainty in the use of "facilitating" policy means within the NNFP.

7.1 Analysis of the Reasons why Food and Nutrition Became an Issue in the Norwegian Political Arena

Why was the NNFP created in the mid 70's? The results of my analysis would indicate that there are two inter-related explanations as to why food and nutrition entered the political arena in the mid 70's:

(i) the historical and cultural importance attached to food in Norway; and

(ii) the growing and highly publicized relationship between diet and health in the Norwegian population.

While these factors illustrate the Norwegian attitude to nutrition and food-related matters, a third factor, in the form of the "health lobby" (see below), also helped nutrition and food to obtain political status.

7.1.1 Historical and Cultural Importance of Nutrition and Food in Norway

A glance at the map of Norway reveals the difficult natural conditions in which a food policy must operate. Norway is the most sparsely populated country in Europe (with only 13 people per Sq.Km., and a population of barely 4 million in 1979). It is a fairly large country (324,214 Sq.Km.), but long and narrow. For those isolated communities living along the fjords, or scattered among the mountainous, cold and inhospitable Northern regions, concern about food and nutrition have historically been traditionally incorporated into a philosophy of survival (J. Ringen, 1976).

The 1930's provide a good starting point for a brief historical overview, with health and food being linked for the first time. As in the rest of Europe, the great depression of the 1930's exacerbated the nutrition problems facing Norwegian communities. The Report on "Intersectoral Action for Nutrition Policy" prepared by the staff of the National Nutrition Council [NNC] (NNC, 1982, p. 4) describes the concern about food and nutrition in this period:

> "In the 1930's nutrition problems in Western industrialized countries were of such concern that they were discussed on a broad basis in the League of Nations. The question was raised within the League of Nations as to whether it was not the the duty of public authorities to take on the responsibility for a nutrition policy. At the same time, the then General Director of Health in Norway, Karl Evang, argued that the question of the diet of the population was a national responsibility which demanded solutions through appropriate measures in many sectors of society." [Emphasis added]

From the 1930's concepts such as self-sufficiency in food, appropriate diet, and the potential benefits to people's welfare of an effective interrelationship between health and agricultural policies, gradually gained ground in Norway (see: Evang, 1974; Milio, 1981b; NNC, 1982).

The contribution of Evang and Hansen, writing in 1937, is noteworthy:

> "The time is long past when the solution of the dietary problems of the population could be principally entrusted to the varying degree of knowledge of individual housewives and to random private business initiatives. The nutrition question has become a social problem, which can only be satisfactorily solved in modern cultural states through social organization." (Evang and Hansen, 1937, p. 168) (Emphasis added)

The above quotation tells us about the "roots" of a community-based commitment to food and nutrition-related matters. This commitment was somehow strengthened by the fact that the Norwegian population has always been characterized by a high degree of homogeneity [1], and by the fact that historically there was neither a nobility nor large landowners. These two factors make Norway an ideal testing-ground for a structural approach to food and nutrition matters (see also: Ringen, 1977a, Chapter 11).

A small NNC was established in 1937 and given the task of studying proposals for a nutrition and food policy which could be implemented by the government. In 1939, an official initiative was taken in Norway to improve the nutrition situation with the participation of several departments such as agriculture, fisheries, trade and commerce (NNC, 1982).

Concern about nutrition and food reached a climax during World War II (1940-45) with the Nazi occupation. During this period, Norwegians experienced severe food supply problems serving to reinforce further the cultural and historical importance of food and to intensify fear of food shortages (see: Milio, 1981b; NNC, op. cit.).

In 1946, Norway re-established and enlarged the original NNC set up in 1937. Norway was the only country to follow whole-heartedly the guidelines of the newly-established Food and Agriculture Organization of the United Nations [FAO]. The idea inspiring these guidelines was that there should be a "marriage between prevention in health (through better

nutrition) and food production" (FAO, 1956, p. 35). The FAO guidelines encouraged governments to set up NNCs, comprising top government officials in agriculture, economic and health policy together with farm and food production representatives, for the purpose of an intersectoral nutrition policy (see: NNC, 1982, pp. 4-5; Milio, op. cit.;RNMA, 1975-76, Report No 32, pp. 16-17).

Throughout the 1950's, and probably as a result of the severe deprivations of the 1930's and the food shortages of the war period, the emphasis was on increasing food production. Nutritional criteria, despite the existence of the NNC, tended to be relegated to a rather marginal position. Milio (1981b, pp. 725-726) points out that the 50's witnessed

> "(..) two food-related provisions. One was a ban on non-agricultural uses of farmland without public permission. The second formalized the increasing cooperative efforts among farm sector organizations, and between these groups and the national government. Their statutory obligations were defined in a General Farm Agreement Act which continued in force with many refinements. Historic conditions such as these helped set the social expectations and standards of judgements of the nation, a land with limited resources, but without a history of wide gaps in their distribution, holding in common ethnic, religious and cultural ways and widely shared experiences of both crises and the overcoming of them."

Of course this background reflected on the sense of community and collective responsibility for resources as well as on the role expected of governments in ensuring and enhancing social welfare. By the 1960's, Norway was virtually self-sufficient in meat and milk and a net exporter of fish (Food Safety Services, 1982; OECD, 1975; 1980-82; 1981). After the war, however, and particularly

with the boom in the 60's, nutrition and food problems changed in character. Problems such as over-eating and unbalanced dietary habits (with a higher fat content) became common.

In 1963, the Nicolaysen Report was published (see: Nicolaysen and Westlund, 1963; see also interview with Dr. Eeg Larsen [2]). This Report pointed to a correlation between the change in dietary patterns and the dramatic increase in the death rate caused by cardiovascular diseases (see: Section 7.1.2). The Report recommended, amongst other things, that the proportion of energy from fat should be limited to 30 per cent of the total calorie intake. Furthermore, the Report claimed that atherosclerotic disease began at an early age and that preventive measures should be taken from early adulthood onwards (see also: RNMSA, 1981-82, Report No 11, Chapter 2).

Although the recommendations of the Nicolaysen Report did not meet with a ready response from the government, they indicated that another element apart from "quantity" was important in the food and nutrition situation of Norway, namely the "qualitative" aspect of the food supply. In an interview conducted in Oslo, Dr. Eeg Larsen [2] in explaining the subsequent developments of the Nicolaysen Report says:

> "Not very much happened for a time since no single department appeared willing to get more involved (..) until 1973 when the Minister of Agriculture (Treholt) was in Rome. In 1973, there was shortage of grain in several parts of the world (..) this was an impetus to the World Food Conference the following year. Treholt was of the opinion that we should try

> to reconcile agricultural with nutritional considerations (..) so we contacted the Ministry of Social Affairs and made efforts to get the two departments to prepare a parliamentary proposal regarding food and nutrition policy. It was delayed for a year due to the death of the Minister of Social Affairs. (..) Four main departments worked on this project: the departments of Agriculture Social Affairs, Fisheries and Consumer Affairs."

To sum up, historical and cultural conditions (in addition to the effects of the 1973-74 world food crises and sharp rises in energy and food prices) formed the backdrop to the creation of the NNFP.

An additional element characterizing decision-making processes and the role of the "health lobby" is also worth bearing in mind. A senior official in the Ministry of Social Affairs, interviewed in Oslo in November 1982, put it in this way:

> "Norway is a small country where everybody knows everybody else. The gap between the levels where decisions are implemented is much narrower than in most developed countries. Thus, this situation makes communications among decision-makers easier and if you have some people, who are highly ranked in the decision-making process, involved in nutrition and food-related matters, as was the case in the early 70's, then you have a great chance of getting these issues into the political agenda as a candidate for consideration".

In describing the period immediately preceding the formulation of the NNFP, Milio (1981b, p. 729) defines this feature of the Norwegian policy-making process:

> "At about this time [1970] the new Director of Agriculture, a man long interested in nutrition and health, became Chairman of the NNC. Another of its members, a university research nutritionist and physician, became the NNC's representative on the Agricultural Research Council and eventually its Head, in 1971. Again, <u>these individuals represented linkages that could be used to help bring</u>

about a unified farm-food-nutrition policy."
(Emphasis added)

Milio (op. cit.) points out another important feature of the Norwegian policy-making process of the early 70's, which is related to the newly-enacted parliamentary process which allowed legislators to question Ministers (i.e. Cabinet members) directly. Thus, this institutional element allowed the health lobby to use effective ways to channel questions to appropriate Ministers concerning inter-related health and agricultural issues (see: Milio, op. cit., p. 727).

This well-concerted lobby activity had therefore the effect of bringing food and nutrition-related issues to the attention of the Parliament, the Cabinet, the press and the public; namely, all the elements necessary for gaining an issue a label of "political priority".[3] Thus, the historical and cultural factors paved the way for the NNFP, the economic conditions resulting in the 1973-74 world food crises gave it added momentum, and it was finally formulated in 1975.

7.1.2 Diet and Health in the Norwegian Population Before the NNFP

In Norway there has been a growing awareness of the relationship between diet and cardiovascular diseases, all the more so after the publication of the Nicolaysen Report in 1963 (see: Nicolaysen and Westlund, 1963). Tab. 7.1, showing changes in consumption (wholesale level) of staple foods, gives an indication of Norwegian dietary habits from 1890 up to the years immediately preceding the formulation of the NNFP.[4]

Tab. 7.1 - Consumption (wholesale level) of Principal Foods in Kg per Person per Year

	1890	1934/38	1953/55	1973
Grain (e.g. flour)	230.1	119.0	98.0	71.0
Potatoes	144.0	119.7	92.0	83.7
Sugar, syrup, honey	9.4	36.9	39.9	37.6
Vegetables	10.3	19.3	35.3	36.7
Fruit, berries	9.0	33.1	41.0	69.5
Meat excl. pork, offal	26.2	23.8	22.2	26.5
Pork	18.1	14.1	13.2	19.1
Eggs	1.5	6.9	7.3	10.0
Fish	18.6	41.4	39.6	28.0
Whole Milk	81.3	188.3	193.4	173.0
Skimmed Milk	76.6	6.2	10.0	16.8
Cheese	7.5	5.9	7.9	9.8
Butter, margarine, and other fat	9.6	30.4	31.6	30.4

SOURCE: NNC (1973 and 1974, Annual Report); RNMA (1975-75, Report No 32, Appendix 1

Tab. 7.1 shows that changes in diet in the first half of this century include a substantial decrease in the consumption of grain and potatoes. There was a considerable increase in the consumption of eggs, fruit, berries,

vegetables, edible fats, sugar and fish. However, Tab. 7.1 shows that the trend was not so clear-cut in the 1953/55-1973 period. Grain consumption fell sharply over the years. Consumption of potatoes, whole milk and fish gradually declined. Cheese consumption remained relatively high. Butter intake was more or less constant. Meat, fruit and vegetable consumption increased.

Tabs. 7.2 and 7.3 illustrate data on sources of fat, on energy values and on the content of protein, fat and carbohydrate in the diet of Norwegians. Generally speaking, these tables show that the Norwegian population has been consuming about 3,000 kcals. per person per day. However, the total fat content in the diet has increased remarkably. As can be seen from Tab. 7.2 about 90 per cent of the fat in the Norwegian diet, in the period preceding the formulation of the NNFP came from meat, milk and industrially processed fats (e.g. margarine).

Tab. 7.2 - Major Sources of Fat in the Norwegian Diet in the period immediately preceding the NNFP

	Percentage of Total Fat in the Diet		
	1970	1973	1974
Meat, all kinds including offal	15	15	17
Dairy fat	34	34	33
liquid milk	15	14	14
cream	5	5	5
cheese	5	5	5
butter	9	10	9
Margarine	33	32	31
Other fats	8	12	12

SOURCE: RNMA (1975-76, Report No 32, Appendix 1.

(*) For the total fats figure see: Tab. 7.3. The Figure for 1970 is 40.8 and for 1974 is 42.5

Tab. 7.3 - Percentage Shares of Energy of Protein, Fat and Carbohydrate in Norwegian Diet Before the Formulation of the NNFP (1953/55 - 1973)

	1953/55	1973
Energy (KCals)	3,080	2,900
Proteins (total)	11.5	11.5
animal	6.8	7.9
vegetable	4.7	3.6
Fat	37.7	41.9
Carbohydrates (total)	50.8	46.6
starch	31	26
sucrose	14	15

SOURCE: Norwegian National Nutrition Council (1978, "Ernaering, Kosthold of helse", Oslo, Feb.); RNMSA (1981-82)

Since the 1960's Norwegian academics, working both at universities and, as commonly happens in Norway, as experts in various governmental institutions, have been investigating a possible link between diet and cardiovascular diseases. The general health situation in Norway since the 1950's has been characterized by the increasing prevalence of cardiovascular diseases (see: Tab. 7.4). Although age can partly be held responsible for the increase in mortality due to cardiovascular disease [5], there is no doubt that in the 60's and 70's far more people (particularly men) suffered or died from cardiovascular disease, particularly cardial infarct (see: RNMA, 1975-76, Report No 32, Nicolaysen and Westlund, 1963; Leren et al. 1975; Hjermann, 1980, Norum, 1978a; 1980; See also Grund, 1982)

Tab. 7.4 - Main Causes of Death per 1,000 Deaths (1931/35 to 1971/75

Causes of Death	MEN(*) 1931/35	MEN(*) 1951/55	MEN(*) 1971/75	WOMEN(*) 1931/35	WOMEN(*) 1951/55	WOMEN(*) 1971/75
Cardiovascular diseases.....	230	401	505	257	450	513
Cancer.....	123	181	186	133	191	191
Infectious Dis.....	150	30	8	143	26	9
All other causes...	497	379	301	467	333	288
	1000	1000	1000	1000	1000	1000

SOURCE: RNMSA (1981-82, Report No 11).

(*) The 1979 figures for death from cardiovascular diseases drop slightly: 495 per 1,000 for men and 487 per 1,000 for women. However, there has been a further increase in mortality due to cancer: 223 per 1,000 per men and 216 per 1,000 for women (see: RNMSA, op. cit., Appendix 2).

Tab. 7.5 shows the marked increase in mortality due to cardial infarct in various age groups, in the period preceding the NNFP.[6] Epidemiological studies carried out in Oslo (Leren et al., 1975; Hjermann, 1980; Hjermann et al., 1981) in Tromso, and in provinces such as Finnmark, Sogn og Fjordane, Oppland (see: Eeg-Larsen and Vellar, 1981-82) received high attention both in Norway and abroad (particularly the Oslo Study). In Chapter 2 Section 2.1.4 I have discussed the uncertainty surrounding the aetiology of cardiovascular diseases. In spite of the presence of this uncertainty, Norwegian medical associations and professionals united in the late 60's and early 70's to form a "health lobby" to promote reductions in cardiovascular disease risk factors, such as cholesterol content in the blood, smoking and high blood pressure (see: Leren, 1966; Westlund and Nicolaysen, 1972; Leren et al., 1975; Norum,

1978a; 1978b; 1980; Hjermann, 1980; Holme et al., 1980; see also: RNMA, 1975-76, Report No 32, Appendix 1; RNMSA, 1981-82, Report No 11, Appendix 2).

In conclusion, the combined effect of the health lobby, the press and existing institutional linkages (see: Section 7.1.1) was that nutrition-related issues found a place on the political platforms of Norwegian parties. In this and the previous section, I have demonstrated that the NNFP did not just happen by chance. Cultural, historical and economic conditions, coupled with the role of the health lobby, have been identified as the environmental elements which inspired the formulation of the NNFP in the mid 70's.

Tab. 7.5 - Number of Deaths from Cardial Infarct per 100,000 (1951/55 to 1976/79)

	Age Group				
	40-49	50-59	60-69	70-79	80--
MEN					
1951-55.....	37	149	348	681	961
1961-65.....	77	302	767	1358	1841
1971-75.....	103	344	863	1752	2585
1976-79.....	94	343	842	1740	2650
WOMEN					
1951-55.....	5	32	144	423	704
1961-65.....	9	52	252	731	1257
1971-75.....	12	57	247	802	1688
1976-79.....	13	53	283	772	1702

SOURCE: RNMSA (1981-82, Appendix 2)

7.2 Analysis of the Formulation of the NNFP

No integrated nutrition and food policies resembling the Norwegian model have been implemented in any other developed country, particularly as regards the introduction of health criteria in influencing global food supply (see: Cohen, 1980; Ringen, 1979; 1983). In order to illustrate the Norwegian model, this section analyses:

(i) The goals of the NNFP;

(ii) The administrative framework set up to coordinate the policy;

(iii) The policy-means identified to achieve the NNFP's goals.

7.2.1 Analysis of the Goals of the NNFP

Report No 32 to the Storting, prepared by the Ministry of Agriculture (RNMA, 1975-76), laid the foundations for the NNFP. The major objectives of the overall policy, which was formally presented by the government to the Parliament (Storting) in 1975 and approved in 1976 are as follows:

1) To formulate a nutrition and food policy in accordance with the recommendations of the 1974 World Food Conference [WFC], in Rome. These recommendations include the broad view that a rational use of food resources by nations would deflate the pressure on global food resources, thus benefiting developing countries.

2) To encourage healthy dietary habits.

3) To increase production and consumption of food produced domestically and increase self-sufficiency in the food supply.

4) To utilize food production resources fully, especially in the economically weaker areas of the country (see: RNMA, op. cit.).

Norway is the first Western developed country to establish a

comprehensive nutrition and food policy in peacetime.

As the above goals presuppose the introduction of measures in a number of different areas, NNFP's goals have been here grouped into four categories accordingly: Health; Global; Food Production; and Regional Development Goals. Each goal, and the measures taken to achieve it, will be considered in turn.

1. Health Goals - The NNFP recommends changes in dietary habits to reduce the burden of the most relevant causes of death and illness in Norway (e.g. cardiovascular disease, certain form of cancer of the digestive system, obesity, tooth decay, etc.). The government revived earlier recommendations, issued by the NNC, and incorporated them into the NNFP. The health goals of the NNFP can be summarized as follows:

(a) The benefical aspects of the diet are to be maintained;

(b) The proportion of fat in the energy supply should be whittled down to 35 per cent [7];

(c) The decrease in the supply of fat should be offset by foods containing starch (primarily cereals and potatoes);

(d) Sugar intakes should also be reduced;

(e) The proportion of polyunsaturated fats should be increased, making the ratio of polyunsaturated to saturated fats approximately 1:2 [8].

The following comments can be made on these goals: First, the relationship between fat in the diet, blood cholesterol levels, and the occurence of cardiovascular disease has been the top priority.

Second, although the relationship between dietary patterns

and health is not yet entirely understood, there is sufficient knowledge for the Norwegian governments to recommend dietary changes.[9]

Third, the guidelines proposed are general and easily understandable by the population. The NNFP aims not to draw up an "ideal diet" containing precise amounts of various nutrients; but rather to list certain principles which provide the basis for general "healthy diets" (see: Sections 7.4.2 and 7.4.3).

Fourth, the health goals of the NNFP imply that abundance of food does not necessarily guarantee a healthy diet. This latter point is especially pertinent for developed countries in general.

2. Global Goals - The NNFP is the first national policy to comply with the recommendations of the 1974 WFC. The WFC urged developed countries to step up their own food production and improve their own consumption patterns from the health angle. The conference identified three main components of a global food policy:

(i) increased food production in all countries;
(ii) improved nutrition through a better distribution of food and improved diets; and
(iii) establishment of a system of global food security.

The WFC criticized excessive consumption in the developed countries for its harmful effect on both health and distribution. The WFC especially criticized the use, in developed countries, of grain as feed for animals in order to provide for their high consumption of meat.

The 1974 WFC recommendations on increasing food

self-sufficiency (i.e. to reduce the role of developed countries in the international food market), and amending trade policy in order to favour developing countries (e.g. to increase the import of tropical raw materials) were both enshrined in the NNFP.

3. Production Goals - Report No 32 stressed the need to increase domestic foodstuffs in Norway. The general production goal was to increase self-sufficiency (corrected for feed concentrate imports) from about 39 per cent in 1973 to 52 per cent in 1990. The NNFP production goals are based on two assumptions:

a) that it is possible to improve the degree of self-sufficiency in Norwegian food supply; and

b) that it is possible to reconcile an increase in domestically-produced food with health goals (see: Section 7.6).

As I shall demonstrate in Sections 7.4.5, the production goals have to tackle objective problems. To mention just two, among many, firstly Norway is a mountainous country with a very hard climate, it is rich in fish resources, but only 3 per cent of the total land is arable. Possibilities for increasing area productivity are limited by various factors (climate, location, type of land, and so forth). Secondly, the inflexibility of Norwegian agriculture means that reducing the fat content of the diet while at the same time ensuring an increase in food production is a great challenge.

4. Regional Development Goals - Regional policy considerations are included in the NNFP with the dual aim of

giving material force to the production goals and of controlling the degree of urbanization so as to halt the rural exodus. Thus, under the NNFP, the major part of the net increase in production is to take place in districts with a weak economic base. One of the aims of these regional development goals was to see that by 1990 at least 3/4 of the net increase in agricultural area was located in economically disadvantaged areas. This development should curb declining employment in agriculture. Report No 32 notes that in the 1969-74 period, employment in agriculture was annually reduced by 8,200 man-years. The number of farms was reduced by a total of 35,000 during the same period and the total farmed agricultural area was reduced from 0.99 to 0.90 million hectares. To counter this trend, Report No 32 suggested suitable areas for agricultural investment and set the goal of reducing the existing gap between salaries in industry and agriculture (see: RNMA, 1975-76, Chapter 5).

In conclusion, it is worth noting that Report No 32 contains no "absolute", or most important goals; instead, the NNFP takes the form of a general social, health and economic plan, in which different goals are to be pursued by intersectoral action and conciliatory processes.

7.2.2 Description of the Administrative Framework of the NNFP

Report No 32 emphasized the need for appropriate institutions and institutional links which could facilitate the implementation of the NNFP and its proposed changes in the country's food system. To this end, the government advocated the following administrative measures:

a) establishment of the Interministerial Coordinating Committee on nutrition [ICC];

b) Reorganization of the National Nutrition Council [NNC]; and

c) Establishment of an office for nutrition within the Ministry of Social Affairs [H5].

All three have now been introduced. Fig. 7.A illustrates the current administrative structure of the NNFP.

The ICC was set up by Royal Decree (May 1978) to coordinate activities amongst the various sectors and ministries. The following ministries are represented in the ICC by one or more senior executive officers: Fisheries, Consumer Affairs and Government Administration, Trade, Industry, Church and Education, Agriculture, the Environment, Social Affairs, and Foreign Affairs. The secretarial functions of the ICC are the responsibility of the Ministry of Social Affairs (i.e. H5; see: Fig. 7.A). The ICC's mandate is to:

(a) co-ordinate the work of the ministries in fields relating to diet in Norway;

(b) ensure that adopted nutrition policy plans are implemented and that measures are set in motion within the set time limits;

(c) contribute to quick and efficient exchanges of

information on nutrition policy within the central administration;

(d) ensure that nutritional considerations are given sufficient attention in the work of ministries; and

(e) keep the government informed of the results of the implementation of nutrition policy.

The ICC is therefore designed to facilitate policy-decisions in the area of food and nutrition and make their ultimate implementation smoother.

The NNC - As we have seen in Section 7.1.1, the NNC started very early in Norway. Report No 32 to the Storting (RNMA, 1975-76) advocated its reorganization so that the NNC could be more sensitive to the needs of the NNFP. The NNC was reorganized in 1979 and its present organization is illustrated in Fig. 7.A. The NNC has about 20 members (17 in 1983), with expertise in the areas of nutrition, diet, dietetics, food hygiene, food technology, food production, food industries and fisheries. The rationale for its reorganization is the government's need for a specialist institution on nutrition questions. The mandate of the reorganized NNC can be summarized as:

a) to be an advisory body for the central government administration and other public authorities in matters concerning nutrition;

b) to give expert advice and opinions to non-governmental organizations; e.g. voluntary organizations; hospitals; schools; the food industry; etc.;

c) to be responsible for describing and analysing the short-term and long-term dietary situation in Norway;

d) to submit proposals for new measures, and to make recommendations on the allocation of funds;

e) to assess the effectiveness of nutrition activities in Norway; and

f) to cooperate and promote work on diet and nutrition both

in the Nordic countries and internationally.

The NNC is affiliated to the Ministry of Social Affairs. Various sub-committees have been set up to guarantee effective contacts in a number of areas of relevance to nutrition.[10]

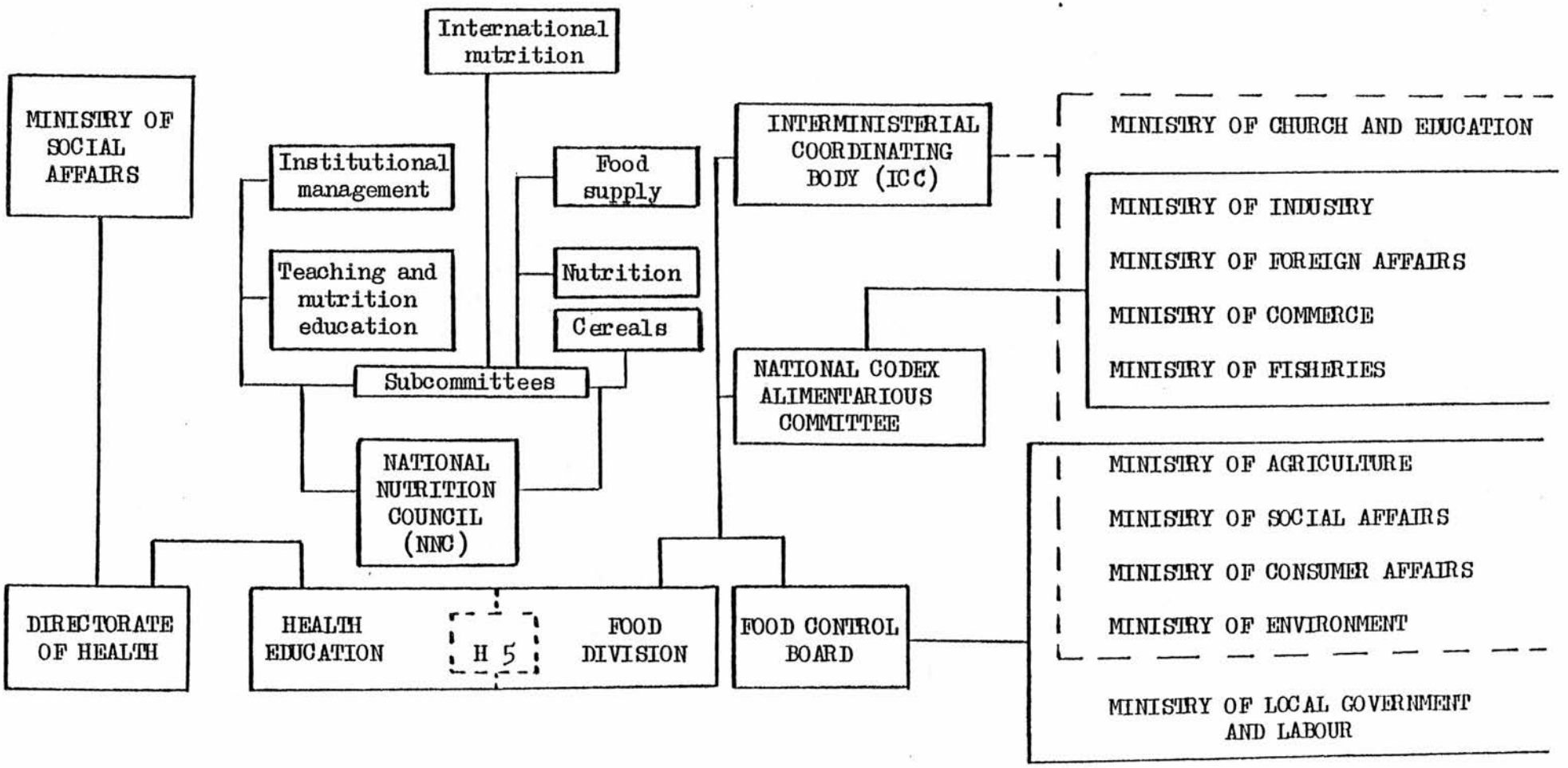
An important feature of the NNC is that it provides an institution where nutrition information is channelled and assessed. Consequently the sources of nutrition information in Norway are more likely to transmit homogeneous messages than in other countries.

The H5 - In Report No 32 it was mentioned that:

> "(..) on the basis of a total evaluation the government has decided that the administrative responsibility for the NNFP should continue to lie with the Ministry of Social Affairs. Because of the increased emphasis placed by the government on nutrition and food policy (..) a separate office for nutrition questions should be established in the Ministry of Social Affairs." (RNMSA, 1975-76, p.80).

The office is referred to in Fig. 7.A as H5. The office is known as the Food Division of the Health Services of Norway (see: RNMSA, 1981-82, Report No 11), and was set up in 1979. It was given secretarial responsibilities for the ICC and NCC (interview with Ms A.K. Hognestad, Secretary of the H5, carried out in Oslo, at the Min. of Social Affairs, in November, 1982).[11]

FIGURE 7A The administrative framework of the N.N.F.P.



(Source: Royal Norwegian Ministry of Agriculture, Report No.32, 1975/76
Royal Norwegian Ministry of Health and Social Affairs, Report No.11, 1981/82
Interview with NNC staff personnel)

7.2.3 An Assessment of the NNFP's Administrative Structure

The results of the Delphi exercise (see in particular the comments on policy issues Nos. 1 and 3 in the first Delphi questionnaire and their restructuring into Policy Issue No. 3 in the final Delphi questionnaire) throw light on the advantages of the present administrative framework of the NNFP as well as some of its (few) limitations (see Appendix B).

As has already been pointed out, a major function of the established administrative framework of the NNFP is coordination. Because of the comprehensive nature of the NNFP, the responsibilities for its implementation heve been divided among several ministries (see Fig. 7.A and 7.B). The ICC should help to make coordination and coherence in decision-taking easier while the NNC should guarantee scientifically sound advice. Thus an important feature of the administrative framework of the NNFP is that it brings decision-makers and experts together. This is quite a common occurrence in a small country like Norway (see also Section 7.1.1).[12]

The results of the Delphi exercise (see Appendix B) illustrate the advantages and limitations of the NNFP's present administrative framework. The major areas where improvements are seen to be both desirable and feasible are:

1. It must be acknowledged that the very great majority of the assessments expressed in the Delphi exercise indicate the importance and adequacy of the established

administrative structure of the NNFP. Nevertheless, since the achievement of the NNFP depends heavily on the continuous and effective commitment and interrelationship of the NNC and ICC, this means that both agencies need adequate secretariats. However, it has been pointed out that, on the whole, staff figures are small in relation to the large tasks to be undertaken by the NNC and ICC.

2. The results of the Delphi exercise show that the establishment of the ICC is judged a necessary institutional step by all experts in the Delphi panel. It was also argued that certain aspects of its activity could be improved through ensuring more consistency of membership in the meetings. The analysis of Policy Issues Nos. 1 and 3 in the first Delphi Questionnaire (see Appendix B) shows that the majority of the Delphi panel agreed on both the desirability and feasibility of maintaining and improving the present administrative structure of the NNFP (the feedback on the restructured Policy Issue No. 3, as it appeared in the final Delphi questionnaire serves to extract some practical suggestions as to how to increase the impact of the ICC; see Final Delphi Questionnaire, Policy Issue No. 3, in Appendix B).

However, it seems rather difficult at the moment to find ways of stimulating certain ministries to play a greater role in the implementation of the NNFP apart from their inclusion in the ICC (see: Appendix B, Final Delphi Questionnaire, Comments on Policy Issue No. 3). Moreover, the various Ministries represented in the ICC may have

different and conflicting interests. For example, pricing policy (e.g. consumer subsidies and VAT compensation; see Sections 7.4.6; 7.5 and 7.6) are intended to fulfil four main purposes: (a) moderate inflation; (b) pursue equitable distribution of income; (c) serve as a flexible instrument of short-term fiscal policy; and (d) influence the production and consumption of foods in line with the NNFP's health goals. However the responsibility for administering subsidies is scattered among the Ministries of Agriculture, Finance, and Consumer Affairs and Government Administration. In reviewing the purposes of the NNFP, an OECD Report argues that

> "The priorities that each of these Ministries places on subsidies cannot be assumed to be identical. Moreover, the Ministry of Social Affairs which has primary responsibility for nutritional goals that are at least partially meant to be achieved through food price subsidies, does not have specific responsibility for subsidy administration. Thus coordination of food policy and nutrition policy has been a difficult area and some conflicts have occured between ministries on this issue." (OECD, 1981, "Food Policy", p.87)

Thus, a very difficult task faces NNFP's policy-makers. If on the one hand the need for compromise and agreement is indispensable for assuring the political feasibility of the NNFP; the health goals of the NNFP (which imply a rather "radical" set of decisions), on the other hand, will be only marginally addressed if future policy-making focuses predominantly on avoiding possible conflicts.

3. Another major obstacle that the present administrative structure of the NNFP has to cope with is posed by the position taken by the Storting on the role to

be played by the ICC. In Report No 32 it was stated that:

> "This body [the ICC] shall not have coordinating responsibility for the food supply policy" (RNMA, 1975-76, p.80) (Emphasis added)

Responsibility for administering food supply policy lies with the Ministry of Agriculture (which is represented in the ICC). It has been noted that:

> "Because food supply is responsive to agricultural prices and other forms of income support, both of which are determined in negotiations between the ministry [of Agriculture] and farmer organizations within the framework of the Agricultural Agreement, the Storting clearly took the position that to grant the authority for directly controlling supply to the institutions created to coordinate food policy [i.e. the ICC] would have meant the disbandment of the Agricultural Agreement regime in its present forms." (OECD, op. cit., pp.87-88)

At this moment, presumably the above-mentioned institutional change is too difficult to make. Hence, the coordination task attributed to the ICC can prove to be rather ambiguous, unless fundamental decisions, fitting the NNFP's objectives, are taken by the Ministry of Agriculture.

4. The Delphi exercise indicates that there is a broad consensus on the key role to be played by the NNC in the development of the NNFP. However, comments on Policy Issues Nos. 2 and 5, in the first and final Delphi questionnaires (see Appendix B), show that there are limits to its reorganization. In particular, some experts, in evaluating Policy Issue No. 2, argue that in the reorganization of the NNC the need to involve professionals with a background in social sciences has been overlooked (see: Appendix B). A social science component within the NNC is seen as

indispensable to providing a more thorough understanding of the numerous factors (sociological, psychological, economic, etc.) influencing eating habits. The analysis of the comments on this policy issue, made in the first Delphi questionnaire, throws light on two possible solutions:

> "(a) One of the NNC new sub-committee should be able to fulfil this requirement in part; and
> (b) to involve and train more professionals with background in social sciences." (Final Delphi Questionnaire, Appendix B)

The Delphi panel point out that, at the present, professionals involved in the development of the NNFP, are indeed rather rare.

5. The Delphi exercise shows that there is large agreement among Norwegian experts on the need to give more emphasis, within the organizational structure of the NNFP, to research activities so as to evaluate better the impact of policy-measures. Policy Issue No. 30 (concerning the need to give more attention and financial support to evaluation activities within the NNFP), in the first and final Delphi questionnaires, has been judged as being of major importance, and its resolution has been assessed as highly desirable by the great majority of the Delphi panel. To resolve this policy issue the following suggestions, distilled from the first Delphi questionnaire, have been identified by the experts in the Delphi:

> "a) Set up specific training activities in project methodology and evaluation for nutrition and other health-related professionals, to enable them to get a better understanding of the need for planning and evaluation.
>
> b) Set up, and give adequate funding to, a

> cross-disciplinary project to evaluate the effectiveness of the present NNFP's measures.
>
> c) Carry out specific research studies in order to assess the desirability and feasibility of alternative policies for reaching the NNFP's goals and improving the rationality of the current decision-making process". (Policy Issue No. 30, Final Delphi Questionnaire in Appendix B)

The need for improving evaluation procedures within the development of the NNFP seems recently to have been given some consideration by the government and a research unit has been established (in 1982) within H5 (interviews with Dr. B. Braudtzeg and Ms A.K. Hognestad, conducted in Oslo at the Min. of Social Affairs in November 1982).

Generally speaking, the assessment made in the Delphi indicates the need to give more emphasis to evaluation research and also the need to improve the current monitoring of food consumption. Data on real food consumption by individuals and families are indispensable for the accurate evaluation of food consumption trends and their influence on diet (see comments on Policy Issue No. 36 in the first Delphi questionnaire, and particularly on Policy Issue No. 37 in the first and final Delphi questionnaires reported in Appendix B). Comments on Policy Issue No 37 (concerning the importance of improving current monitoring of food consumption pattern in Norway) suggested that this issue could be addressed by:

> "a) setting up a 'National Food Survey'; and
> b) setting up specific follow-up intervention programmes to improve the monitoring and evaluation of the various activities stemming from given measures connected with the NNFP."

The potential benefits of such a solution have been

described by the Delphi participants as follows:

> "It would systematise the whole data base."
>
> "It would make it easier to obtain information (and carry out specific research projects) on the dietary patterns of the public in general as well as of selected groups." (Final Delphi questionnaire; see Appendix B)

Fig. 7.8 - Responsibilities for the Implementation of the NNFP

GOV.TAL INSTITUTIONS	Type of Responsibilities
Min. of Fisheries	Sea Food Policy
Min. of Consumer Aff. & Gov. Adminstration	Consumer Policy
Min. of Church and Education	Supervision on Nutrition Education
Min. of Environment	Administration and Natural Resources
Min. of Agriculture	Agricultural Policy
Min. of Trade and Commerce	Retailing and Import Regulaions
Min. of Foreign Aff.	International Aspects of the NNFP
ICC	Overall Coordination
NNC	Scientific Advice for NNFP Development and Nutrition Education
H5	Secretarial Functions for ICC & NNC

SOURCE: RNMSA (1975-76); RNMSA (1981-82); Interviews conducted in Oslo, November, 1982, with: Prof. K. Norum (Chairman of the NNC and Prof., Univ. of Oslo, Institute of Nutrition Research; Mrs A. Hognestad (Min. of Social Affairs, H5).

7.2.4 The Policy-means of The NNFP

In the formulation of the policy there was awareness of the fact that:

(i) a time period of 10-15 years was needed to achieve the objectives of the NNFP (the year 1990 was indicated as a reasonable time schedule); and

(ii) the objectives of the NNFP presuppose the introduction of measures within a number of different economic and social sectors.

Report No 32 (RNMA, 1975-76) identifies the areas where measures for the implementation of the NNFP are to be introduced:

** agricultural and fisheries policy measures;
** price policy and consumer subsidies;
** industrial processing and imports measures;
** marketing measures;
** nutrition information, education and teaching;
** food legislation and regulations;
** research.

The Report stresses the importance of carrying out these measures by involving: (i) the public sector; (ii) the food industry and its organizations; and (iii) the voluntary organizations.

Generally speaking, appropriate measures in the above-listed areas should aim on the one hand to increase Norwegian food production, and on the other hand to adapt this increase to health considerations so as to improve the diet of the population. In practical terms this means pressing simultaneously for a reduction in the fat content in the diet and an increase in domestic production of foods with a lower fat content. Norwegian authorities claim (see: RNMA, 1975-76; RNMSA, 1981-82) that the policy-means

identified by the NNFP are sensitive to the needs of three types of constituencies: the consumers; the producers; and the social organization.

In Fig. 7.C I have outlined the use of policy means such as (i) facilitating; (ii) regulatory and (iii) educational policy means in meeting consumer, producer and social needs.

The following three considerations lie behind the rationale of the use of facilitating, regulatory and educational policy means within the NNFP.[13]

1. Fig. 7.C shows that the NNFP attempts to satisfy needs of different constituencies of society. In this attempt, two considerations deserve mention here. Firstly, the NNFP has been formulated through a consensual approach and recognizes the needs of the producers rather than coming to a head-on collision with them (see: Winikoff, 1977; Robertson, 1985; Ziglio, 1983e). Secondly, the three main categories which influence social development; namely: production, consumption and social and human interactions, have all been dealt with comprehensively. Ringen (1983, p. 165) puts it in this way:

> "Consumers have been promised healthy foods at regulated prices, farm producers have been ensured a satisfactory level of living, and the demands of potent special interest groups have been positively addressed. Thus most political constituencies have been satisfied in one form or another, making the potential for implementation of the policy-makers' intentions very high."[14]

The above quotation explains the low level of opposition to the NNFP when it was debated and passed by the Storting in May 1976.

There is initially a certain amount of scepticism, however, as to what extent, in the Norwegian experience, specific goals (set for different interst-groups and different sections of the population) can be successfully integrated with each other. Olsen et al., (1982; see also: Torgersen, 1970)) give an account of the special nature of the socio-economic context and the consensual type of policy-making processes in Norway:

> "Norway is a (..) fairly homogeneous country. In modern Norwegian history consensus and peaceful coexistence, rather than dissensus, have prevailed. (..). A modern welfare state has been built without agonising conflicts. Norway has moved from being one of the poorest to one of the richest countries in Europe - a 'revolution in slow motion' - while retaining peaceful coexistence between major groups." (Olsen et al., 1982, pp. 48-49)

With this in mind, authors such as Ringen (1977a; 1977b; 1979; 1983; Winikoff (1977) and Milio (1981b) suggest that the NNFP deserves to be labelled as "realistic".

2. By contrast with the "individualism" of the Canadian model of health promotion, with its emphasis on individual responsibilities and change of behaviour thorugh persuation, the Norwegian policy attempts to manipulate the environment in such a way as to make it easier for the individual to make "healthy" choices (see: Ringen, 1977a; 1977b; 1979; Winikoff, op. cit.; Robertson, 1985). In the rationale of the NNFP a simultaneous "double" approach is therefore proposed. This aims on the one hand to improve the motivation of the individual in changing unhealthy behaviour(e.g. through consumer education); and on the other to create a situation in which "healthier" choices will be

easier to make than unhealthy ones (e.g. consumer education and pricing policy).

3. The values underlying the formulation of the NNFP and in particular the government's role in promoting health and its relationship to consumer choices in the market-place deserve special mention. The NNFP, in fact, explicitly rejects coercive measures. Report No 32 (RNMA, 1975-76, p. 5) states that:

> "It is obvious that adjustment in the diet can only be made by consumers voluntarily changing their dietary habits. The government's task is by various measures to encourage the desired development. The changes aimed at deviate from the trends found today in countries with high and rising material standards." (Emphasis added)

Although the extent to which the imposition of incentives and disincentives (e.g. pricing policy) in allowing people to act in a truly "voluntary" way is a delicate matter (see: Blythe, 1978a), the NNFP does not entirely reject the principle of free choice for the consumer. Thus, its example can be a real challenge for those governments who in the name of the "free choice" principle find excuses for non-intervention in bringing food policy in line with health policy.[15]

Nutrition policy cannot be conceived separately from food policy: this is the lesson to be learnt from Norway's NNFP.[16]

The fact that the rationale of the NNFP reflects concern for the global situation is also a very important feature of the policy. The links between nutrition and food, health,

agricultural policy, social development, international trade and global food supply are given detailed consideration in the Norwegian approach.

In conclusion, the policy means of the NNFP can be described as innovative. Educational measures, in order to enable individuals to take care of their own health, combined with community measures, in order to create favourable conditions in the social environment, form an innovative approach to the field of health promotion. Norway's NNFP shows that it is not only desirable, but also possible, to back up nutrition guidelines with enabling measures.

The next section concentrates on analysing the various sources of uncertainty attached to the effectiveness of NNFP's policy measures in slowing down and eventually reversing undesirable trends in food consumption and nutrition-related diseases.

FIGURE 7C Categories of Policy Means in the NNFP : An Example

CONSTITUENCY	NEEDS	FACILITATING MEANS	REGULATORY MEANS	EDUCATION
1. Consumer	- partial substitution of carbohydrates (starches) for fats - partial substitution of polyunsaturated fatty acids for saturated ones	- consumer (price) subsidies and producer (cost) subsidies to make 'desirable' foods cheaper than undesirable ones - to induce the use of starches, the price on food grains and potatoes will be held low, while the favouring of products such as skim milk over whole milk will be used to promote less fat consumption	- legislative actions in order to prevent the production and distribution of undesirable foods - foods that are deemed to be a danger to health have to be outlawed - establishment of standards for acceptable production processes, food content and methods of marketing	- actions to increase knowledge of nutrition within the population - action to increase the public's awareness, beginning at the primary school level, about the entire chain from the origin of foods to their effect on the human body - actions to reduce the 'fetishized' status that foods have taken on during the high volume marketing of the last decades (foods as sources of nutrition rather than as commodities)
2. Producer	- stability in income	- production remmeration (which consists of the establishment of basic prices for all products and a production (cost) subsidy paid to each farmer depending on output and need - investment subsidies (to support farmers to purchase equipment and expand their total acreage of arable land	- quotas means : to be used to establish specific limits to the quantity to be produced of a given product - rationing means :	
3. Social	- redistribution of nutrition and foods according to the 1974 World Food Conference recommendations - to strengthen Norway's rate of self-sufficiency	- investment subsidies to increase the cultivation of domestic acreage (priorities to be given to depressed areas)	- importation quotas - price regulations	

7.3 Analysis of Consumption Pattern Changes after the First Stage Implementation of the NNFP

Available data on food consumption in Norway are not entirely reliable. There is therefore methodological uncerainty in using available data for analytical purposes. The need to improve these data has been stressed, for example, in the Delphi exercise (see: comments on Policy Issue No. 37 in the first and final Delphi Questionnaires reported in Appendix B). Generally speaking, the great majority of food consumption data, particularly before the formulation of the NNFP, are based on wholesale statistics.[17] Studies on trends of Norwegian diet have to adjust such data or to collect primary data for the study itself (see the study conducted by Prof. Ogrim et al., 1981).[18] However, in both cases the figures are averages which are not entirely appropriate in assessing dietary changes in different segments of population.

Although the available data are limited [17][18], they can still be used to illustrate developments in consumption, as illustrated in Tabs. 7.6 and 7.8. Diagrams 7(a-g, incl.), summarize wholesale data on consumption patterns for different foods in relation to the goals established in the NNFP (see: NNC, 1982a). To interpret these data we need to remember the major fall that took place in sugar consumption in the mid-70's as a result of the changing international market (Interview conducted in Oslo, 1982, Nowember, with Prof. Norum, Univ. of Oslo, Institute for Nutrition Research and Chairman of the NNC; see also Ringen, 1983).

Tab. 7.6 shows that the 1970's have seen a new increase in grain consumption after a sharp decrease since the mid-1950's. Although the figure for 1981 is approximate the present trend seems encouraging as regards the NNFP's health goals. But, the trends for potatoes, sugar, egg, meat, cheese, cream and other fats are not so encouraging. Tab. 7.6 and diagrams 7a-g (incl.) illustrate these trends and the discrepancy with the health goals of the NNFP. Trends for butter and margarine seem to be in line with the NNFP's nutritional goals. The high level of meat consumption is an area of real concern, with perhaps the exception of pork consumption which is roughly in line with the NNFP's objective (see diagram 7(e)). The consumption of potatoes is also discouraging and its trend does not show any sign of an upwards turn. Sugar consumption also appears to be quite out of line as well as cheese and cream, while the consumption of vegetables and fruit seem more than satisfactory in the light of the NNFP's health goals.

Tab. 7.7 shows that the protein content of the diet has remained more or less constant at 12-13 per cent of the total energy value. Thus, broadly speaking, the NNFP's health goals have already been met from a protein point of view. We have seen that the main emphasis of the health goals is on reducing the total fat content in the diet, and since the protein content was supposed to remain at its present level, this means that carbohydrates should altogether supply 50-60 per cent of the energy in the diet. Furthermore, the NNFP indicates that sugar should not supply more than 10 per cent of total energy (see: RNMA, 1975-76;

RNMSA, 1981-82; Appendix 3). However, as regards trends in fat and carbohydrates contents, Tab. 7.7 shows that the NNFP goals are not yet met. The trend regarding the sugar content is indeed out of line with the NNFP, but that of fat has at least halted since 1977.

Tab. 7.8 helps to explain the type of food that contributes to these undesirable trends. As far as fat is concerned, Tab 7.8 shows that there has been a positive decrease in margarine's share of energy, whereas there has been a constant increase in the share of meat from 1970 to 1980. Moderate increases in cheese, butter and other animal fats also contribute to the continuing high fat content in the diet. Report No 11 to the Storting (RNMSA, 1981-82, p. 25) notes that the reduction in fat content should be brought about by a reduction in the consumption of edible fat. Such a trend has in fact emerged. The reason why the fat content in the diet nevertheless has failed to drop significantly is that meat consumption has continued to increase. Tab. 7.8 also shows that although a move from whole to skimmed milk was also recommended in the formulation of the NNFP, this has been brought about to a certain extent but the trend appears to have been halted.

In conclusion, trends in food consumption show both positive and negative developments. The tendency towards increased consumption of cereals and the decline in margarine consumption is encouraging. The trend in sugar consumption is unfortunate as well as the declining consumption of potatoes. The desirable reduction in edible

fat (e.g. margarine) has been somewhat offset by increases for cheese and meat products.

Although the data available are too general for a thorough analysis, we can say that on the whole the situation, after the first stage of implementation of the NNFP, is no worse than in 1975-76. To expect dramatic changes in the diet as a result of the NNFP measures would be to underestimate the uncertainties concerning activities in health promotion strategies. The Delphi exercise shows the need to improve consumption data as well as to give more priority to evaluation research so as to evaluate the consequences in terms of the changes in diet in different age and social groups of particular policy measures (see in particular the comments on Policy Issues Nos. 30; 31; 32; 35; 36; and 37 in the first Delphi exercise reported in Appendix B).

TABLE 7.6 Consumption (wholesale level) of food in Kg. per person

	1953-55 (1)	1970	1974	1975	1976	1978	1979	1980	1981*
Grain, including rice (as flour)	98,0	71,0	75,4	74,9	76,8	76,4	77,5	81,8	87,3
Potatoes, including potatoprod	92,0	85,8	83,0	79,4	79,0	75,3	74,1	71,9	70,7
Potatostarch	2,6	1,8	1,8	1,8	1,8	1,6	1,5	1,9	1,7
Sugar, syrup, honey, sugar products	39,9	41,9	34,0	29,7	39,5	40,1	41,7	39,3	43,3
Peas, nuts, cocoa	4,1	6,0	5,9	5,5	7,0	7,0	6,9	7,3	7,3
Vegetables	35,2	40,1	41,0	37,5	38,9	46,3(5)	45,4	49,9	46,6
Fruits and berries	41,0	66,7	73,3	73,6	77,7	81,3(5)	75,6	75,2	81,2
Meat, exluding pork	19,9	22,7	25,8	28,5	27,6	30,0	30,2	30,4	27,6
Pork	13,2	17,7	21,1	20,5	22,0	20,6	21,1	22,3	20.0
Meat bi-products	2,3	2,9	3,2	3,2	3,1	3,3	3,2	3,4	3,6
Eggs	7,3	9,6	9,6	9,4	9,9	10,1	10,5	10,6	10,6
Fish (2)	39,6	39,5	31,0	26,3	29,5	30,2	29,8	33,7	34,1
Whole milk	193,4	172,0	172,3	169,2	165,6	160,1	161,3	163,8	161,7
Cream	5,0	6,8	6,7	6,7	6,8	7,1	7,1	7,1	7,1
Skimmed milk	10,0	15,2	20,7	26,8	27,9	29,8	28,2	29,6	30,1
Condensed milk, dried milk (whole milk and skimmed) (3)	3,2	11,7	15,9	14,0	11,9	11,6	9,8	16,2	16,6
Cheese	7,9	9,0	9,8	10,3	10,3	11,5	12,0	12,5	12,1
Butter	3,8	5,5	5,2	4,6	5,3	5,3	5,3	5,6	4,1
Margarine	24,0	18,7	17,6	17,6	16,6	15,8	15,3	16,1	14,1
Other fats (4)	3,8	4,3	4,4	4,1	3,9	4,7	4,9	4,7	4,7

(1) The numbers are not directly comparable with the series from 1970. For grain, the figure for food consumption is 10-15% too high because of rationing of feed concentrates
(2) Gross weight
(3) Calculated as whole milk
(4) Calculated as 100% fat
(5) Revised series for the years 1977 and 1978
* Provisional data

Source: NNC (Årsmelding 1981 og rapport om matforsyningen i Norge, Oslo, 1982)

Tab. 7.7 - Energy Content of some Nutrients in the Food Supply - Norwegian Data per Person per day for 1953-55(*); 1970; 1975; 1977; 1979

	1953/55	1970	1975	1977	1979
Energy,Kcals	3080	2880	2780	2930	2930
Energy,MJ	12.9	12	11.6	12.3	12.3
Proteins Tot.(g).....	89	85	87	91	92
animal,(g).....	50	55	56	59	60
vegetable,(g).....	39	30	31	32	32
Fat,(g).....	129	126	125	125	124
Carbohydrates,(g)...	392	352	326	362	363
starch,(g).....	238	185	190	195	195
sucrose,(g).....	109	115	81	110	114
Percentage share of energy:					
Proteins, total.....	12	12	13	13	13
animal.....	7	8	8	8	8
vegetable.....	5	4	5	5	5
Fat.....	38	39	41	38	38
Carbohydrates,tot....	50	49	46	49	49
starch.....	31	26	27	27	27
sucrose.....	14	16	12	15	16

SOURCE: Report No 11 (RNMSA, 1981-82) (Calculations based on the Annual Report of the National Nutrition Council).
(*) The basis for calculations for 1953/55 is not quite comparable to the rest of the series.

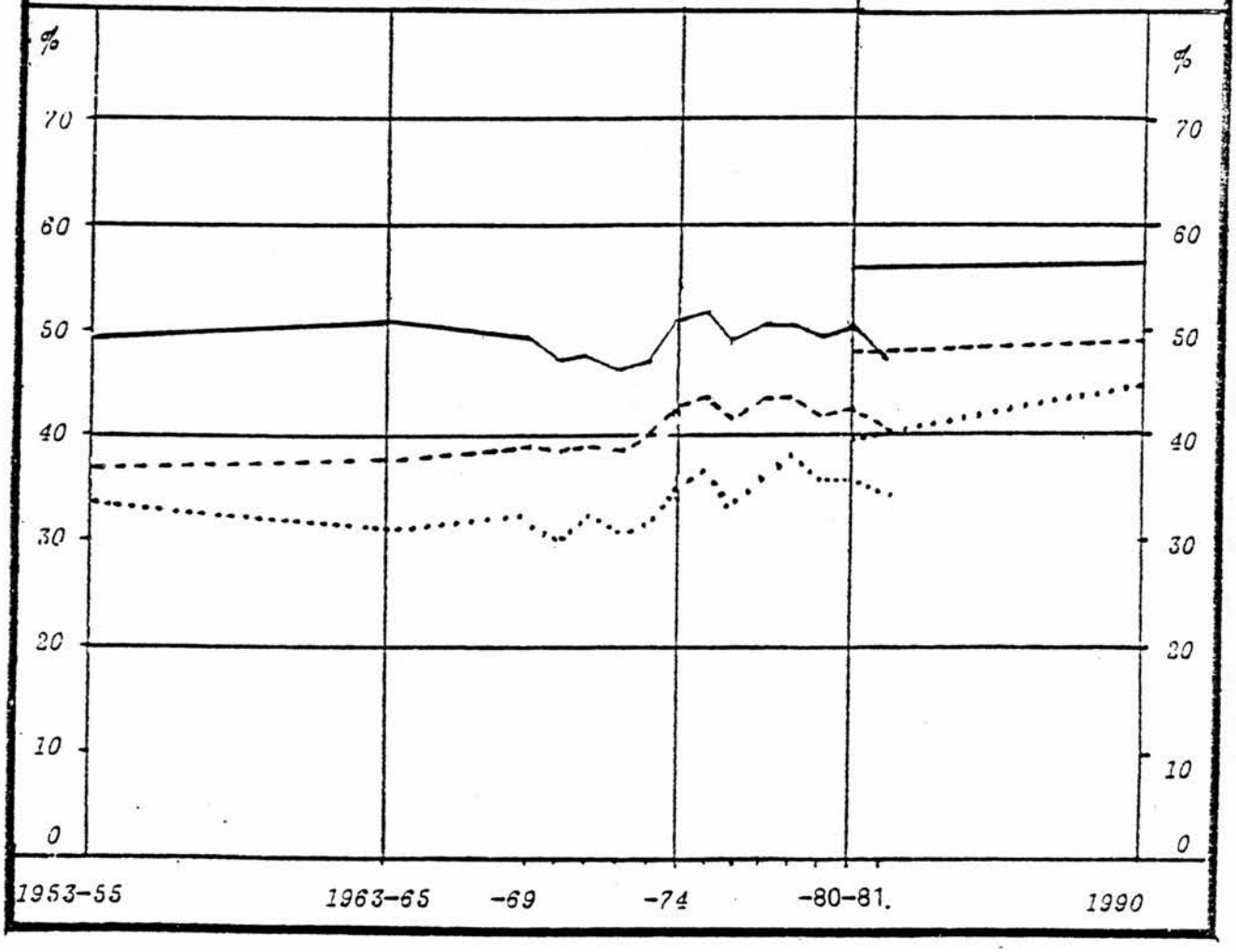
TABLE 7.8 The composition (in per cent) of the Norwegian food consumption on an energy basis (KJ)

	1953[1] 55	1970	1974	1975	1977	1978	1979	1980	1981*
Vegetable foods									
Grain, including rice (as flour)	29,6	23,2	24,8	25,3	24,7	24,5	24,7	25,4	27,0
Potatoes, and potatoflour	6,4	6,2	6,1	6,0	5,7	5,3	5,2	5,1	4,9
Sugar, syrup and honey	13,3	15,2	12,4	11,1	14,4	14,3	14,7	13,7	14,9
Peas, nuts, cocoa	1,3	2,0	2,1	2,1	2,5	2,5	2,5	2,6	2,6
Vegetables	0,7	0,8	0,8	0,8	0,9	1,0	0,9	1,0	0,9
Fruits and berries	2,0	3,0	3,2	3,4	3,3	3,5	3,2	3,2	3,4
Margarine, vegetable	5,9	6,3	6,3	6,6	6,5	6,1	5,8	5,9	5,6
Other vegetable fat	2,9	2,9	2,4	2,4	1,9	1,7	1,5	1,6	1,7
Sum vegetable foods	62,1	59,6	58,1	57,7	59,9	58,9	58,5	58,5	61,0
Animal foods									
Meat, excluding pork	2,6	3,2	3,7	4,2	4,0	4,2	4,2	4,1	3,7
Pork	3,8	4,5	5,4	5,4	5,2	5,1	5,3	5,4	4,8
Offal	0,3	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4
Eggs	0,9	1,3	1,3	1,3	1,3	1,4	1,4	1,4	1,4
Fish	2,1	2,3	1,8	1,6	1,9	1,7	1,7	1,9	1,7
Whole milk	11,4	11,1	11,2	11,3	10,2	10,2	10,1	10,0	9,8
Cream	1,4	2,0	2,0	2,0	2,0	2,0	2,0	1,9	1,9
Skimmed milk	0,3	0,5	0,7	0,9	0,9	1,0	0,9	0,9	1,0
Condensed milk, dried milk (whole and skimmed)	0,5	0,5	0,7	0,7	0,5	0,5	0,4	0,6	0,6
Cheese	2,7	3,3	3,6	3,9	4,0	4,1	4,3	4,3	4,3
Butter	2,6	3,8	3,7	3,3	3,5	3,6	3,7	3,7	3,1
Margarine (animal fats)	9,3	6,8	6,1	6,1	4,6	4,8	4,6	4,8	4,1
Other animal fats	-	0,7	1,3	1,2	1,6	2,2	2,5	2,1	2,1
Sum animal foods	37,9	40,4	41,9	42,3	40,1	41,1	41,5	41,5	39,0

(1) The numbers are not directly comparable with the series from 1970
* Provisional data

Source: NNC (Årsmelding 1981 og rapport om matforsyningen i Norge, Oslo, 1982)

Diagram 7(a) - Norwegian Food Consumption Produced Domestically as Compared with the Aims of the NNFP



Norwegian Food Consumption Produced Domestically

Food Produced in Norwegian Agriculture

Food Produced in Norwegian Agriculture Corrected for Feed Concentrates Import

Diagram 7(b) - Per Capita Consumption of Cereals and Potatoes
Source: Statens Ernaeringsraad (National Nutrition Council) (1982, op. cit.)

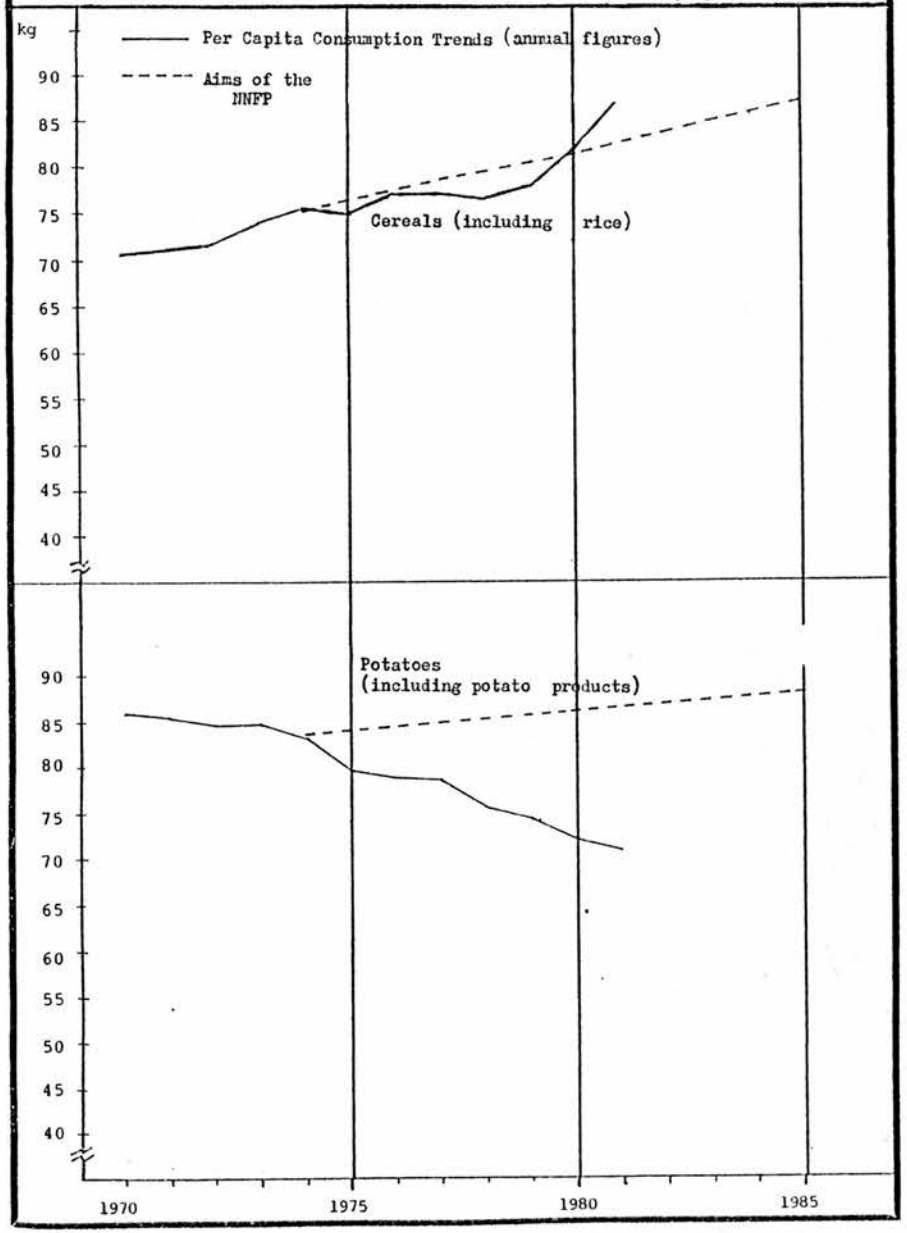
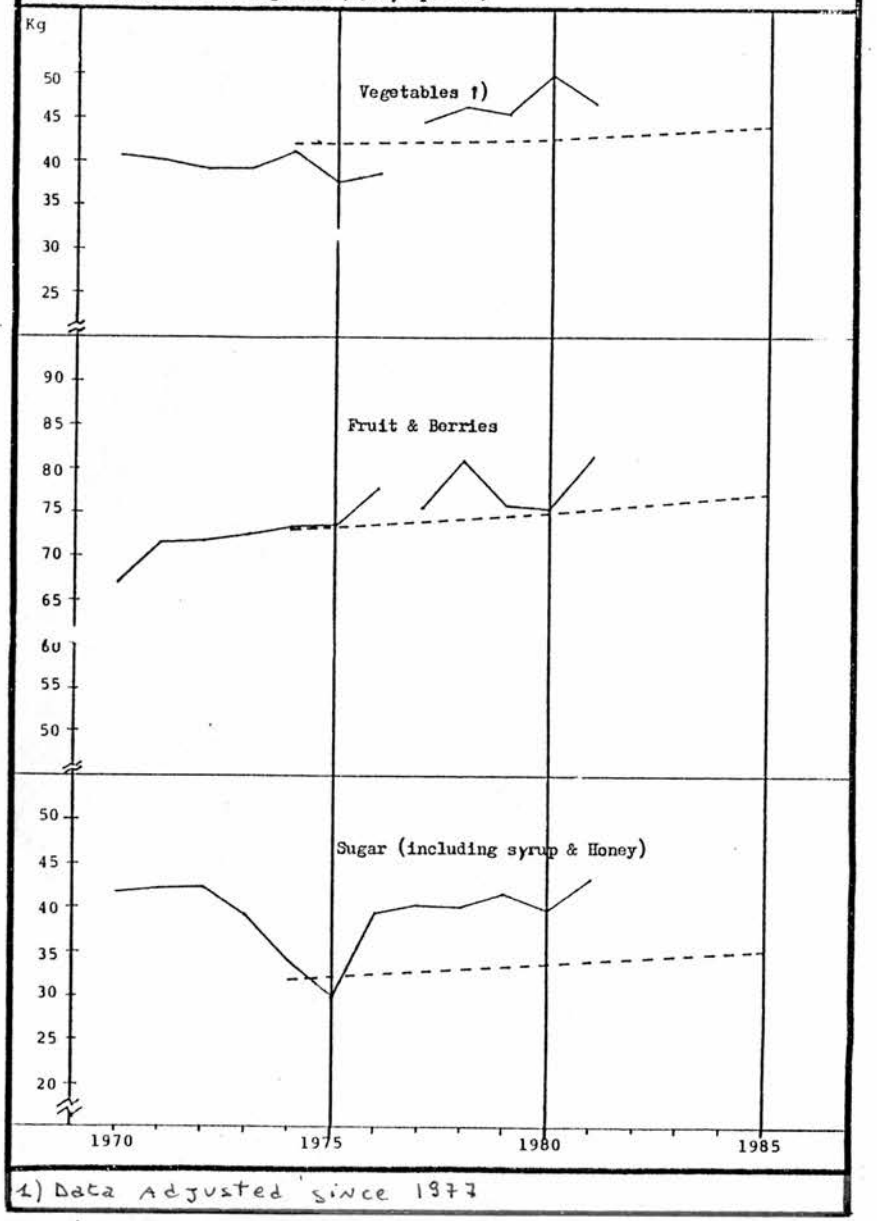


Diagram 7(c) - Per Capita Consumption of Vegetables, Fruit & Berries, Sugar
Source: Statens Ernaeringsraad (1982, op. cit)



1) Data adjusted since 1977

Diagram 7(d) - Per Capita Consumption of Eggs, Fish, Cheese
Source: Statens Ernaeringsraad (1982, op. cit.)

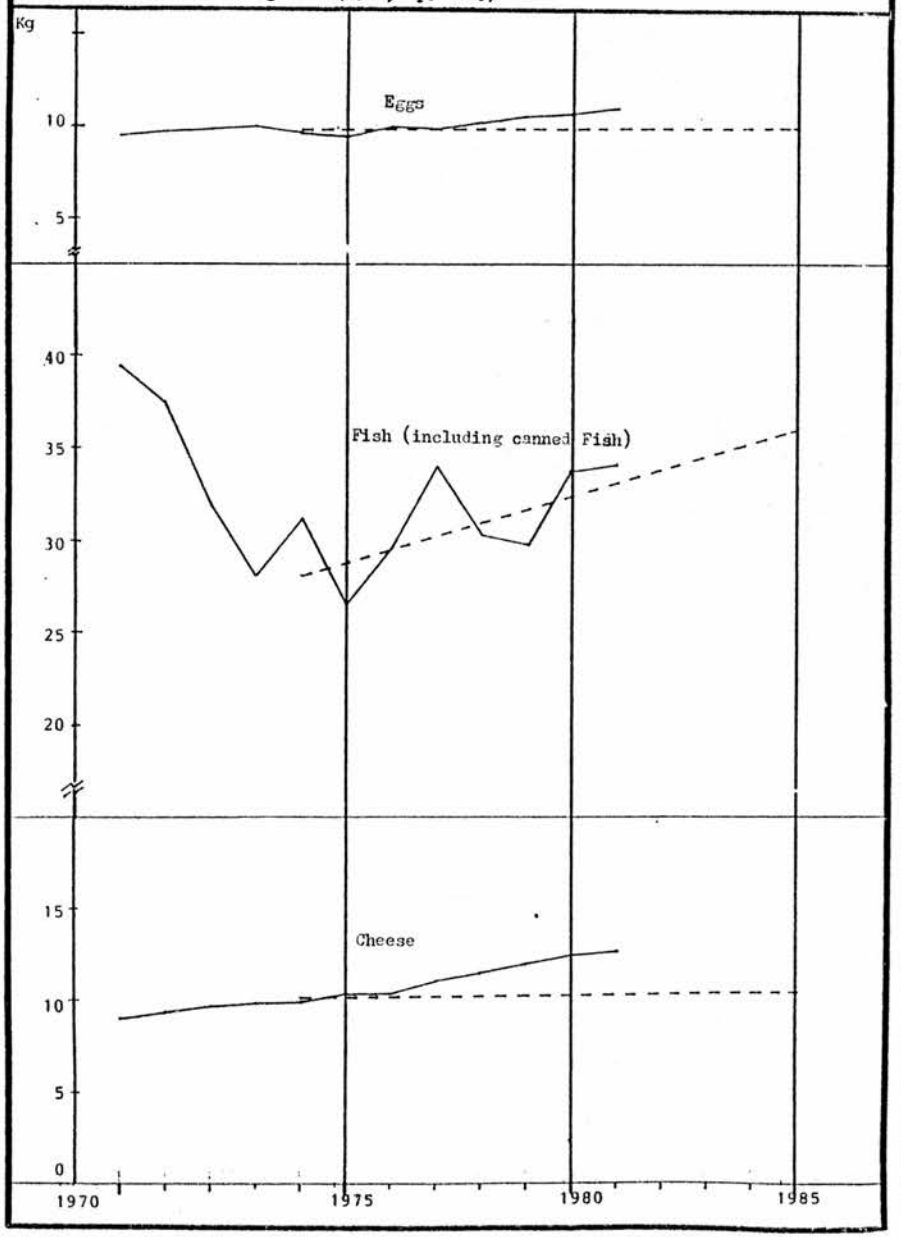


Diagram 7(e) - Per Capita Consumption of All Meat (excluding Pork) and Pork
Source: Statens Ernaeringsraad (1982, op. cit.)

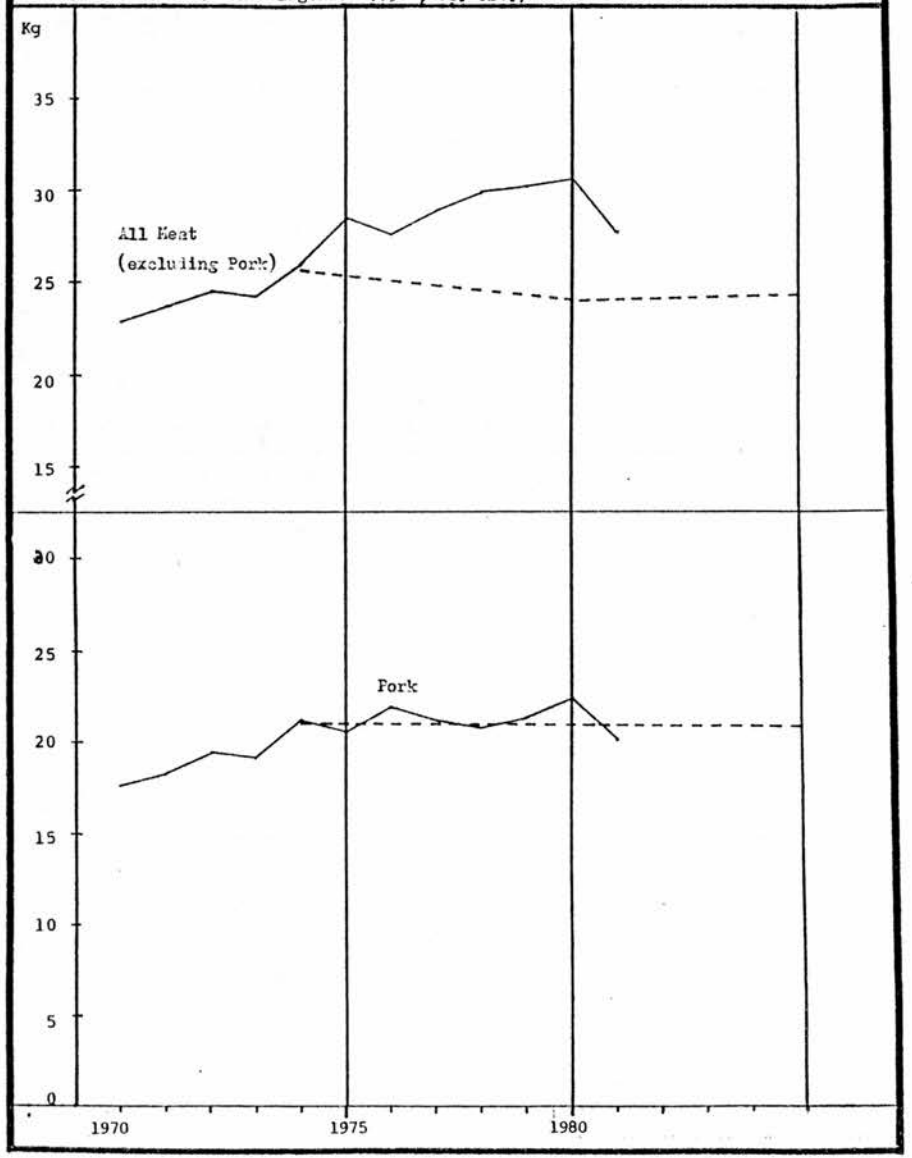


Diagram 7(f) - Per Capita Consumption of Milk, Skimmed Milk, Cream
Source: Statens Ernaeringsraad (1982, op. cit.)

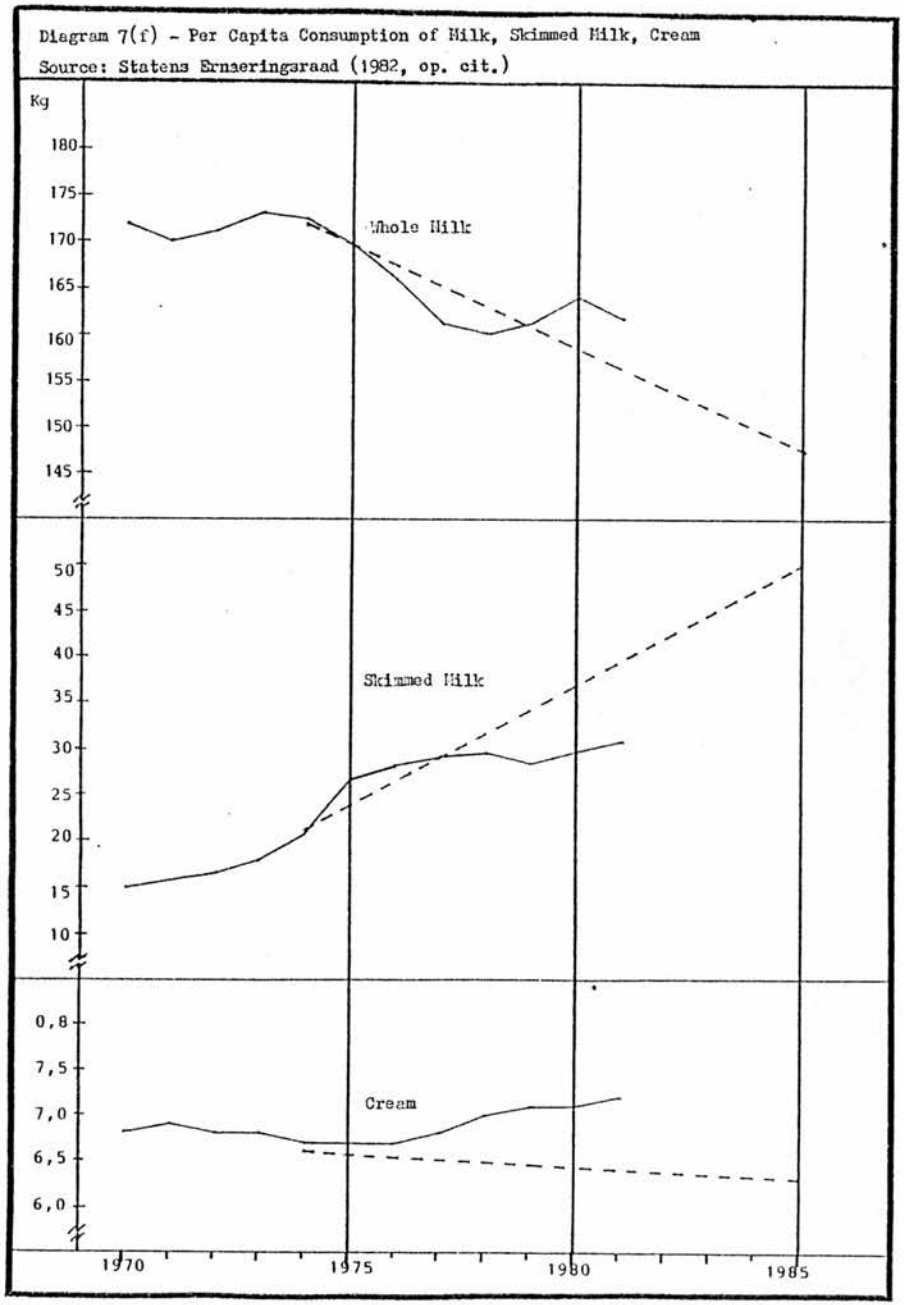
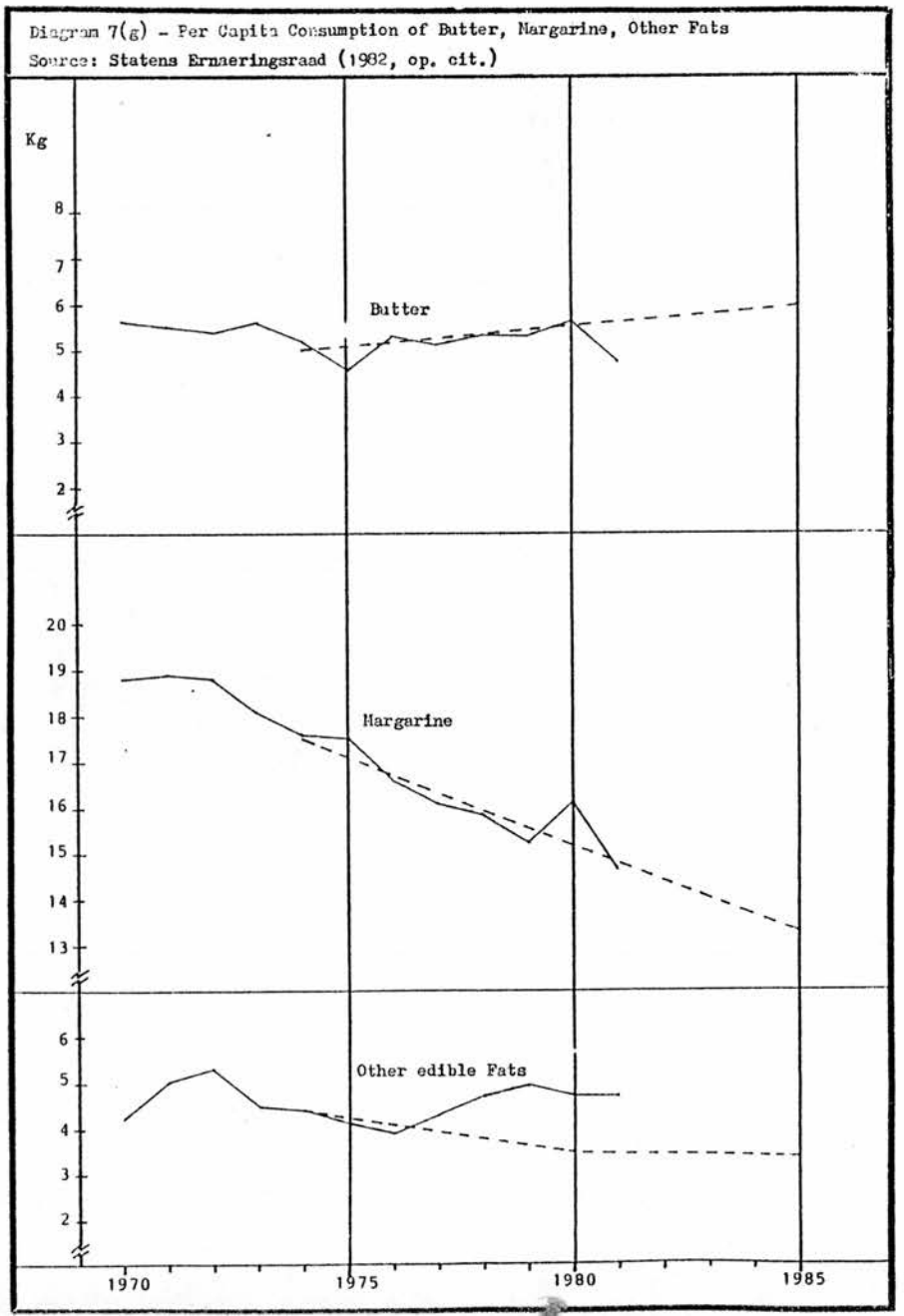


Diagram 7(g) - Per Capita Consumption of Butter, Margarine, Other Fats
Source: Statens Ernaeringsraad (1982, op. cit.)



7.4 Analysis of the Results and Uncertainties in the First Stage of the NNFP Implementation

Report No 32 to the Storting (RNMA, 1975-76, p.9) pointed out that:

> "What is decisive for the implementation of the national nutrition and food policy will be the degree of stability and the extent of coordination in its execution". (Emphasis added)

Although in 1981 there has been a change in government in Norway, the NNFP's goals have not been modified. It is worth noting that historically the agricultural sector has been backed up by Labour governments, while the Conservatives have been much less enthusiastic in devoting a high amount of resources to a sector which is unlikely to be very efficient under the harsh conditions governing Norwegian agriculture. Nevertheless, in the Report on the follow-up of the NNFP (RNMSA, Report No 11, 1981-82), the overall goals of the policy have not been jeopardized by changes in the political sphere.

In evaluating the progress made by the NNFP and in indicating its future directions, Report No 11 (op. cit.) carefully avoided provoking the newly-elected Conservative government. Therefore, although the NNFP goals have been unchanged and in the case of health goals even reinforced, a different emphasis characterizes this Report. In Report No 32 (RNMA, 1975-76), emphasis was placed on changing food supply by controlling agricultural production and distribution while information and education received a relatively low priority. Conversely, the 1981-82 Report No

11 emphasizes the importance of giving high priority to health policy measures (e.g. health education), without however betraying the original comprehensive approach.

> "Policy measures on nutrition are considered to be of particular importance in the field of preventive health work. In order to give support to this work it is important that high priority be given to measures in the information and educational sector. Drawing up price instrument is also important in an overall policy on nutrition. (RNMSA, 1981-82, p. 4) (Emphasis added)

Report No 11 retains the same means of implementation identified in Report 32. However, it must be said that Report No 11 is somehow disappointing in failing to emphasize the social objectives of the NNFP, which were central to Report 32. Indeed, social objectives such as the need to strengthen Norway's economically weak regions, or the considerations on global food supply, have been rather neglected (see also: Ringen, 1983).
Nevertheless, 8 years on from the formulation of the NNFP, the ambitious and comprehensive approach to nutrition and food policy still remains.

In this Section I shall analyse the use of the principal NNFP policy means; namely: (i) nutrition information; (ii) agricultural policy; and (iii) pricing policy.

7.4.1 Analysis of the NNFP's Nutrition Information Measures

Nutrition information measures in Norway include both regulatory (e.g. food labelling) and educational policy means (e.g. health education programmes; nutrition education and teaching). Food legislation is a complex subject in Norway. Generally speaking, there is agreement on the comprehensiveness of this type of legislation as well as on the understanding and willingness of the food industry to adapt to labelling requirements or advertising regulations. A review of Norwegian food legislation can be found in Race (1976); Min. of Consumer Affairs and Government Administration (1975); Blythe (1978a; 1978b) and Norwegian Min. of Consumer Affairs and Government Administration (1975).[19] However, as this legislation has only been marginally changed by the NNFP (apart from the "Food Control Coordinating Act of 1978; see note [19]), here I shall concentrate on

(a) nutrition education for the general public;
(b) the 1982 nutrition campaign; and
(c) Teaching of nutrition in schools.

7.4.2 Nutrition Education for the General Public

Since 1977 an annual 1 million Nkr has been granted by the government for educational activities concerning diet and nutrition. The NNC is the key institution responsible for improving nutrition education. The NNC carries out nutrition education either on itsown or in collaboration with other voluntary organizations, such as "Tannvernet" (literally, "the tooth defence) and the National Association

for Diet and Health, or governmental institutions, such as the newly-established (1979) Coordinating Council for Health Education (see: Norum, Mollen and Vellar, 1979; see also: RNMSA, 1981-82, Chapter 6, Section 6.6).

In the first Delphi questionnaire, a hypothetical increase in government spending on nutrition was judged by the great majority of the respondents to be desirable (see: Comments on Policy Issue No. 5, reported in Appendix B). However, the comments made by the Delphi panel suggest that the likelihood of receiving further financial support from the government is not very high (see: feedback of the final Delphi questionnaire: Policy Issue No. 5, Appendix B).

In contrast to the government allocation, the food industry at the onset of the NNFP (namely in 1975), spent a total of 39.8 million Nkr on publicity and advertising, with a further 17.1 million NKr on education posters and filmstrips, for a total of 56.9 million NKr (see: Forbrukerrapporten, 1976, No 9, pp. 6-7; Blythe, 1978a; 1978b; RNMA, 1981-82). Blythe (1978b, p. 165) notes that in 1975:

> "Chocolate, cocoa, confectionery, sugar-containing soft drinks and fruit juices, ice creams, prepared desserts and cream accounted for 43 per cent of the food advertising costs, or 17 times more than the current government allocation to the National Nutrition Council."

Report No 11 (RNMSA, op. cit., p. 10) claims that in 1980 a total of 100 million NKr was spent on advertising food and beverages.

Thus, the above figures spent by the food industry on food advertising seem to overwhelm the 1 million Nkr budgeted by the government for nutrition education. However, this comparison is too extreme as it stands (see also: Blythe, 1978b). Universities, voluntary organizations and public bodies all contribute to nutrition education with activities that go beyond the 1 million NKr allocated by the government. In 1980, for example, five information offices of the Ministries of Agriculture and Fisheries had about 25 million NKr at their disposal, partly from VAT on products and partly from other public funds, for advertising activities (see: RNMSA, op. cit., p. 10). This type of advertising is prepared in consultation with the NNC or must follow its guidelines.

The role of the government in controlling advertising and seeking collaboration with the food industry has been judged positively in the Delphi execise (see also: Race, 1976). Comments on Policy Issue No. 23 (see Appendix B) show that

> "(..) false claim are prohibited. On the whole, the food industry has been very decent in its advertisements."

Moreover, it is worth quoting Blythe (1978b, p. 6):

> "In fairness, it should also be said that when a health or safety issue becomes clear beyond any possibility of dispute, the government is not afraid to take uncompromising action, there has been an absolute prohibition upon any advertising of tobacco and alcohol since 1975".

We must recognize also that because of the uncertainty related to diet and disease patterns, which is much greater than uncertainty as to the effect of smoking and drinking

too much, unequivocal action over food is far less likely (see: Chapter 2, Section 2.1; Blythe and Rush, 1977; Robbins, 1978; CAS, 1979).

7.4.3 The 1982 Nutrition Campaign

In order to reinforce nutrition awareness, the NNC in collaboration with the State Information Service and the National Association for Nutrition and Health planned and implemented a comprehensive, centrally-directed, Nutrition Campaign [NC]. The NC was lanched in February 1982 with a press conference, television, radio and press coverage. Posters and other educational materials were prepared and displayed in streets and on public transport. The objectives of the campaign were:

i) To interest more people in their diet;
ii) To motivate them in improving their dietary habits; and
iii) To persuade them actually to change their unhealthy eating habits.

The campaign was aimed at the general consumer. General nutrition information also reached politicians, health personnel and other key persons (see: NNC, 1982; Interviews conducted in Oslo, in November 1982, with NNC members of staff: Ms Mollen; Ms Versterhus; Ms Hognestad, Min. of Social Affairs, H5). The NC placed emphasis on the following:

** There are many good aspects of the traditional Norwegian diet which should be maintained.

** Dietary habits can be changed.

** Everyday food habits are the most important ones.

** Only small adjustments are needed to achieve a beneficial change in dietary habits.

** Reduce fat intakes where it helps most.

Great importance was attached to stimulating local activities. This was done by direct information for key groups with the aim of using them as local contacts for following-up (see: materials prepared by the NNC's Subcommittee on Education and Nutrition Teaching such as "Helse er en Frukt av Hva du Spiser"). The production of educational materials has resulted in the implementation of many projects within kindergarten, cafeterias, shops, industries, local papers and radio stations (see: NNC, op. cit.; Blythe, 1984; Interviews conducted in Oslo, 1982, Nov., with NNC staff members: Prof. Norum; Ms. Mollen and Ms Vesterhus).

Attempts to evaluate the effectiveness of the campaign were devised. Surveys carried out in connection with the 1982 NC showed that 72 per cent of the population, the majority women, were aware of the campaign, and 43 per cent had heard of the book "Everyday Food", which was prepared as part of the NC. Of this 43 per cent, half had found out about it from television and a quarter from advertisements in newspapers and magazines. Around 100,000 copies of the book "Everyday Food" were sold, which has been considered a remarkable achievement given the general contraction of the book market (see: Dr. Tjom, Inst. of Social Economics, Norwegian School of Management, Personal Communication, 1983; Interviews conducted in Oslo, 1982, November, with Dr. E. Homb, National Association for Diet and Health; NNC

member staff Ms Mollen and Ms Vesterhus).

However, there is little evidence to prove that changes in dietary habits are the result of the effectiveness of the NC. "Evaluation" is a very weak aspect of the NNFP (see also Section 7.2.3) and the Delphi exercise shows the importance attributed to the need for overcoming this drawback (see comments on Policy Issues Nos. 30; 10 and 11 in the first and final Delphi questionnaires). Evaluation methods used in assessing the effectiveness of the 1982 NC can provide very little more than the assessment of the campaign's success in reaching the target group.

In conclusion, three aspects of the 1982 NC are significant as they show the different emphasis attached to educational policy means in Norway as compared to other Western developed countries.

First, there is agreement (witnessed by Reports 32 and 11) upon the fact that information and education are of prime importance in spreading knowledge and encouraging people to adopt healthy habits. However, there is awareness of the fact that there is a large gap between interest and knowledge on the one hand, and self-motivation and changed behaviour on the other (see: NNC, 1982, pp. 10-11). In the NNFP, information and teaching are therefore considered to have long-term objectives, each in isolation having only a limited effect.

Second, the NC has been characterized by realism and simplicity in its message. It has avoided giving

complicated, although scientifically correct, messages. The NC presented, in fact, desirable dietary goals translated into a series of small, easily achievable changes in the daily meals routine. As Blythe (1984) notes, prohibitions were avoided, there being an implicit recognition that if one allows people to "sin" every now and then, they may find it easier to behave the rest of the time. Thus, the NC's approach pivoted on the concept that by cutting down sensibly during the week, one can safely eat more or less what one likes at the weekend (see: NNC, 1982).

Third, the emphasis on both central and local activities is very relevant. This has in fact guaranteed homogeneity of messages. It is a rare feature, particularly compared with the multitude of non-homogeneous sources of nutrition information in many developed countries.

7.4.4 Teaching of Nutrition in Schools

It is somehow paradoxical that in spite of the presence of an innovative NNFP there is little systematic teaching of nutrition in Norwegian schools at any level (see: interviews conducted in Oslo, 1982, Nov., with Dr. E. Homb, National Association for Diet and Health; see also: Norum, Mollen and Vellar, 1979; see also: Blythe, 1984). Both Report No 32 (RNMA, 1975-76, Chapter 8, Sec. 8.8.2) and Report 11 (RNMSA, 1981-82, Chapter 6) advocate measures in this area. Report No 32 points out that attitudes and eating habits are formed at a very early age, so it is important to introduce

nutrition education from kindergarten upwards.

In the first Delphi questionnaire, when assessing Policy Issue No 9 ("Make the teaching of nutrition a compulsory part of the curriculum in schools"), the participants agreed that the Norwegian school system should make more room for nutrition education. It was felt, however, that what really matters is not to have nutrition as a compulsory subject, but to improve the integration of various nutrition-related subjects into the syllabus (see comments on Policy Issue No. 9 reported in Appendix B).

As nutrition is not a compulsory subject in the Norwegian schools curriculum, and as Norwegian teachers have considerable autonomy in choosing their teaching activities, incentives to facilitate nutrition teaching have been introduced. These incentives have been recorded in Report 11 which discusses, among other things, the situation of the teaching of nutrition from kindergarten to upper secondary education (RNMSA, op. cit., Sections 6.5.1; 6.5.2; 6.5.3).

The two types of incentives are: (i) the availability of short nutrition courses for teachers; and (ii) the preparation, especially in response to the 1982 NC and of the work of the National Association for Diet and Health (Landsforeningen for Hosthold og Helse), of more attractive and suitably-pitched material (see: Landsforeningen for Hosthold og Helse, 1979; and undated materials). However, there has not been yet any real evaluation of the effectiveness of these incentives (see also: the discussion of Policy Issues Nos. 6; 7 and 8 in the first Delphi

questionnaire and Policy Issue No. 7 in the final Delphi questionnaire reported in Appendix B)

7.4.5 Agricultural Measures: the NNFP Production Targets

Agricultural policy measures are largely determined within the framework of Agricultural Agreements between the farming organizations and the government (see: OECD, 1975; Cohen, 1980; RNMSA, 1981-82). Agricultural measures in Norway are closely related to price policy which will be dealt with in Section 7.4.6, here I shall concentrate on the production targets of agricultural policy, included in the NNFP.

With the exception of fish, and dairy products, Norway's degree of self-sufficiency is low. Appendix 6 to Report No 32 (RNMSA, 1975-76) indicates that before the formulation of the NNFP:

> "The degree of self-sufficiency in foods, calculated in terms of energy was 47.7 percent in 1973. Of this fish comprised 7.5 per cent. When this figure is corrected for the import of feed concentrates, we find that the proportion of the food consumed in 1973, which came from Norwegian agriculture production based on domestically produced fodder was 31.7 per cent."

The low degree of self-sufficiency is primarily due to the large energy import of grain and sugar (see: RNMA, op. cit.; RNMSA, 1981-82; Cohen, op. cit.; Ringen, 1983; See also: Lonne, 1982; Norway Information, 1983, June).[21]

Tab. 7.9 shows Norway's intention to increase the rate of self-sufficiency in food grains, whereas domestic production should continue to meet the demand for milk and milk products, cheese, butter, meat, potatoes, eggs and as far as possible also vegetable and fruit. From Tab. 7.9 we assume

also that in the view of the NNFP sugar should not be produced domestically. In the light of the NNFP's attempt to ensure that production and consumption of agricultural products conform to nutrition criteria, it is important to examine how three key food items have been dealt with since 1974. These are: (a) grain foods; (b) dairy products and (c) meat. These products are very relevant if the fat content in the diet is to be reduced and counterbalanced by an increased content of carbohydrate in the form of fibre (see: Section 7.2.1).

Tab. 7.9 - Norwegian Self-sufficiency in Food Calculated on an Energy Basis - (Percentage Data)

	1974	(estimated) 1990
Grain	7	28
Potatoes	100	100
Sugar	1	1
Vegetables	82	87
Fruit & Berries	38	35
Meat, excluding Pork	93	100
Pork	91	100
Offal	100	100
Fish	83	85
Whole Milk	100	100
Cream	100	100
Skimmed Milk	100	100
Condensed & Powder Milk	93	94
Cheese	99	100
Butter	100	100
Margarine	49	60
Other fats	17	20
Total Self-sufficiency	50.8	56
Total share of produced food corrected for imported feeds	34.5	44.5

SOURCE: Report No 32 (RNMA, 1975-76); Choen (1980)

7.4.5(1) Grain Production

Chapter 5 of the Report No 32 (RNMA, op. cit.) claims that it is possible to increase grain production through cultivation of new land and better use of existing agricultural land (interview with Dr. E. Mykland, Senior Officer, Royal Norwegian Min. of Agriculture, conducted in Oslo, November, 1982; see also: RNMA, 1976-77, Report No 14). In 1975, the amount of land used for grain was 0.3 million hectares and by far the largest proportion of grain was used as animal feed. The NNFP aims to increase the grain area to 0.36 million hectares by 1990. Report No 32 points out that a considerable proportion of this additional area should be used for food grain.[22]

In my view, the degree of feasibility for this goal is uncertain and (to a lesser extent) so is its degree of desirability. The following three considerations justify scepticism.

First, there are climatic and topographic limitations to grain production in Norway. These limitations will be even weightier if land is reclaimed in disadvantaged areas of the country (i.e. Central and Northern Norway)(see: Blythe, 1979; Cohen, 1980).[23]

Second, the NNFP aims to increase the grain area to approximately 20 per cent above the 1975 level, reaching a total of 360,000 hectares by 1990. Report No 32 argues that this increase can be made by land reclamation, largely from marginal forest land. The feasibility and desirability of

this proposal is again uncertain. Cohen (1980, p. 24) points out that:

> "The extent to which forest land could be transferred to agriculture both in marginal as well as in productive areas, is keenly debated in Norway since timber is a valuable natural resource."

As forestry is an important source of income for Norwegian farmers, the use of the land for other agricultural purposes must therefore be assessed against the goal to reduce the income gap between workers in the agricultural and industrial sector (in order to appreciate the importance of forestry within farming activities see: Norway Information, 1977; Lonne, 1982).

Furthermore, apart from the feasibility of land reclamation for increasing grain production, its desirability may come into conflict with ecological and conservation aims.

Third, in assessing the possibilities for new cultivation the concept of cultivable land can be ambiguous. In my view, an assessment of the desirability and feasibility of grain area expansion must take account of:

(i) what is possible to cultivate in the light of available knowledge and technology; and

(ii) the desirability of such an expansion from a social welfare perspective (e.g. food security, ecological, economic and regional policy criteria).

As far as the first element is concerned, feasibility seems rather low both for what has been said above and also because of the lack of top soil and the abundance of stony land areas present in Norway (see: RNMSA, 1981-82, Chapter 5). The second element depends, amongst other things, on the general economic situation. From what has been said, it

is clear that increased grain production cannot be achieved easily without considerable economic investment. Thus, economic uncertainties or recession may undermine the desire to improve the degree of self-sufficiency in favour of a secure, short-term solution in the form of an international grain delivery agreement. However, it must be said that so far, the desirability of strengthening an agricultural sector of debatable efficiency has prevailed over cost-efficiency considerations.

7.4.5(2) Dairy Products

The presence of a strong dairy industry in an already inflexible agricultural sector will make it very difficult to accommodate the health, social, and agricultural goals of the NNFP.

The high output of Norway's dairy sector is the most notable feature of Norwegian farming and, at the same time, is the cause of the NNFP's major problems. Tab 7.10 shows, among other things, the production of milk and milk products. Output increased in response to substantial incentives. These incentives are mainly in the form of subsidies and VAT compensation (see: Section 7.4.6).

Given the key role of the dairy products in ensuring incomes for farmers, the government has little choice but to offer incentives if it wishes to place farmers' incomes on a level with those of industrial workers (see also: Blythe, 1979). On the other hand the NNFP's health goals suggest

the desirability of a reduction of the fat content in the diet (see: Section 7.2.1). For political, social and economic reasons, however, the NNFP has decided that a reduction of butter and cheese production is undesirable, while in terms of consumption skimmed milk should be preferred to whole milk. Thus, the bulk of the reduction in the total fats in the dairy products is to come from margarine.

However, in spite of the uncertain effectiveness of isolating margarine as the main target in the attack of fat consumption, a substitution of butter for margarine is not entirely desirable from a health angle. In fact, it conflicts with another of the NNFP health goals, namely that of increasing the proportion of polyunsaturated fats in the diet.[24] It also conflicts with one of the NNFP's social goals, namely that of promoting the interests of the fishing industry which is linked with the manufacture of hydrogenated marine oils (indispensable for margarine production)(interview with Mr. C. Blythe, conducted in London, at the Health Education Council, March, 1983).

In conclusion we can say that the presence of a strong component in an already inflexible agricultural sector will make it very difficult to accommodate the health, social and agricultural goals of the NNFP. Thus, the need to maintain a secure future for the dairy sector at the same time as pursuing health goals poses a real dilemma for the planners of the NNFP.

A final consideration is related to the concept of the "credibility" of health education messages. In the interests of this concept, nutrition education cannot avoid informing the public of the desirability of a reduction in the production and consumption of butter in Norway, for instance. Thus, the intersectoral measures of the NNFP can minimize internal conflict only if there is a strong move to produce dairy products with a lower fat content (whose feasibility is, however, very uncertain both for technical and marketing reasons). Nevertheless, the problem of dairy fat surplus and by-products would still remain. This latter problem is particularly relevant when considering the difficulty of marketing Norwegian dairy products abroad (interview with Mr. C. Blythe, conducted in London, at the Health Education Council, 1983, March).

7.4.5(3) Meat Production

Report No 11 (RNMSA, 1981-82, p. 22) claims that:

> "The livestock population has increased in recent years for most types of animals. Cattle, for instance, increased by 1 per cent from 1977 to 1978 and by 1.6 per cent from 1978 to 1979. (..) Total livestock production calculated in calories has increased steadily and for 1979 is calculated to be 1 billion 753 million Kcals."

From what has been said in Section 7.2.1, in terms of global and agricultural goals priority should be given to beef and mutton production. This production can make full use of abundant domestic pastures and therefore reduce the import of animal fodder. The production of meat from pork

and poultry is only possible in Norway if feed is imported in large quantities. The production of beef and mutton is therefore in line both with the goal of increasing self-sufficiency and of reducing imported feed for livestock which could otherwise be diverted to developing countries.

However, pork and poultry are nutritionally superior in some respects to beef and mutton because their meat largely comprises a variety of unsaturated fats whereas beef and mutton contain predominantly saturated ones (interview with Mr. C. Blythe, conducted in London, 1983, March). It is surprising that neither Report 32 nor Report 11 mention this. These Reports state that it would be desirable to maintain the consumption of meat at about the 1974 level as its subsequent increase conflicts with the NNFP health goals. However, as Report No 11 specifies, prices paid to meat producers have been raised considerably throughout the 70's (see: RNMSA, 1981-82, Chapter 6, Section 6.3.2), as a means of limiting the increase in the consumption of meat and raising agricultural incomes.

In conclusion, the Norwegian authorities are in favour of increasing consumption of beef and mutton as against pork and poultry, a move which is supported by recent pricing policy (see: Section 7.4.6). To keep beef and mutton prices down at the same time as maintaining producer incomes, these products have been substantially bolstered by appropriations in the state budget in the form of subsidies or VAT compensation. In this section I have argued that in considering the four most relevant types of meat produced

and consumed in Norway, the pursuit of agricultural goals (e.g. stability and increase in farmers' incomes) and global ones (i.e. the improvement in the level of self-sufficiency in food) conflict with nutritional criteria. The rationale of pricing policy related to meat production seems a rather ambiguous feature of the NNFP (see: Section 7.4.6).

Furthermore, the present policy concerning meat production does not appear to be highly effective, for the following two reasons.

First, the sharp increase in meat prices has not resulted in a reduction in pork or poultry consumption (although there was a slight increase in beef and mutton consumption in 1980 (see: RNMSA, 1980-81, Chapter 6, Section 6.3.2; see also Tab. 7.8).

Second, the sharp increase in meat prices has not produced the hoped-for increase in the consumption of fish which would have been in line with the NNFP's goals. Thus, it seems that factors other than prices have influenced consumption patterns.[25]

TABLE 7.10 Import-Export of some food items in Norway (Mill. kg)

		1959	1969	1977	1978	1979	1980	1981*
	Import : sugar	141,1	151,4	165,1	163,4	171,6	158,4	175,4
	syrup	5,5	3,8	2,9	2,8	2,5	2,8	5,1
	Import : other sugar products also including glucose	1,1	3,8	7,8	8,5	8,4	9,9	9,2
	Export : sugar, syrup or sugar products	0,0	0,5	0,7	0,6	0,7	0,6	0,5
Butter :	Export mill. kg	6,4	1,4	6,1	0,4	0,4	0,5	2,8
	Import mill. kg	-	1,3	-	2,2	1,7	1,8	-
Cheese :	Export mill, kg	9,7	16,3	19,5	19,9	20,8	18,8	21,5
	Import mill. kg	0,2	0,3	0,9	1,1	1,4	1,3	1,2
Margarine :	Production mill. kg	92,5	83,8	76,2	75,3	73,8	76,3	69,5
	Export, mill. kg	6,6	8,0	8,6	8,4	8,5	7,7	7,1
	Import, mill. kg	0,0	-	-	-	-	-	0,3
"Border trade"	Export grensehandel, mill. kg	-	2,8	2,3	2,6	2,9	2,9	2,4
Meat, exluding pork	Export, mill. kg	0,6	2,4	0,7	0,9	0,9	1,1	2,1
	Import, mill. kg	1,2	2,1	16,7	15,0	13,1	16,6	6,4
Pork	Export, mill. kg	0,0	1,9	-	0,1	-	-	2,5
	Import, mill. kg	2,3	2,5	6,4	6,1	5,7	5,9	1,6
Eggs	Export, mill. kg	1,4	0,4	-	0,1	0,3	-	-
	Import, mill. kg	0,1	1,4	2,5	1,6	0,7	0,9	1,0
Fish	Export, mill. kg	**	544,2	553,5	546,2	603,8	530,7	**
	Import, mill. kg	**	32,4	36,1	31,6	45,4	56,4	**

* Preliminary figures ** Unavailable data

Source: Statens Ernaeringsraad Arsmelding 1981 og rapport om matforsyningen i Norge, Oslo, 1982
The Nat. Nutrition Council : Annual report 1981 and report on Norwegian food supply

TABLE 7.11 Import of the most important fresh vegetables, fruits and berries in Norway (million kg.)

	1959	1969	1977	1978	1979	1980	1981*
Cauliflower	2,5	2,7	2,9	2,1	3,0	2,5	3,0
Cabbage	0,0	0,4	2,9	0,6	3,5	0,7	0,5
Carrots	1,3	0,3	5,7	2,9	1,3	8,2	2,0
Onions	4,1	4,4	2,7	2,6	3,6	2,9	3,0
Tomatoes	2,1	3,0	5,2	5,7	6,0	6,1	6,5
Cucumbers	0,0	1,0	2,7	2,7	3,1	2,9	3,0
Lettuce	0,2	0,3	0,7	0,8	0,3	0,7	0,5
Fresh fruits/citrus fruits	48,4	69,2	69,3	67,6	63,6	63,1	65,0
Bananas	24,3	32,3	38,6	38,7	33,7	29,9	36,0
Apples	19,2	19,1	36,6	38,3	48,6	41,8	45,0
Pears	5,4	8,0	9,5	9,8	11,6	12,4	10,0
Grapes	7,5	12,5	14,1	13,2	17,3	15,6	17,0
Plums, peaches, nectarines etc.	0,2	1,0	3,9	3,4	3,4	4,2	3,7
Other fruits	0,0	1,4	2,2	2,0	2,7	2,7	3,0
Fresh fruit total	105,0	143,5	173,2	173,0	181,7	169,2	180,5
Canned fruit	6,1	18,9	24,8	31,3	27,4	31,6	33,0
Dried fruit	7,0	7,0	6,1	6,3	6,4	6,0	6,3
Fruit total	118,1	169,4	204,1	210,6	214,6	206,8	219,8
Berries total	0,1	0,8	3,1	2,3	3,0	1,9	3,0

* Preliminary figures

Source: Statens Ernaeringsraad Arsmelding 1981 og rapport om matforsyningen i Norge, Oslo, 1982
The Nat. Nutrition Council : Annual report 1981 and report on Norwegian food supply

7.4.6 Pricing Policy

The NNFP uses pricing policy to guide consumption behaviour in the direction of desirable purchases also from a health angle. The rationale of this policy means is defined in the formulation of the NNFP:

> "An important factor which influences the demand for a product is the price. For the majority of products demand falls with rising prices, and rises with falling prices. How strongly demand will react to a price change is dependent on several circumstances, including the degree of the price change and the consumer's income." (RNMA, 1975-76, p.51)[26]

The use of subsidies and VAT compensation are by far the strongest means used in Norway's pricing policy. Before the formulation of the NNFP in 1975-76 subsidies and VAT compensation (the latter was introduced in 1974) were used to control general price trends as well as to operate distribution policy.[27] In Tab. 7.12 we can see the trends in total subsidies and VAT compensation before and after the formulation of the NNFP.

Tab. 7.12 - Total Amounts of Consumer Subsidies and VAT Compensation for Foods - Period: 1970-1982 - Millions NKr -

	Subsidies	VAT Comp.	TOTAL
1970	601.8	--	601.8
1971	641.0	--	641.0
1972	645.0	--	645.0
1973	847.7	--	847.7
1974(*)	1230.8	598.9	1829.7
1975	1354.4	746.1	2100.5
1976	1550.0	983.2	2533.2
1978	2067.3	1154.9	3222.2
1980	2058.1	1364.2	3422.3
1981	2026.7	550.7	2577.4
1982	2024.4	726.7	2751.1

SOURCE: RNMA (1975-76, Report No 32); RNMSA (1981-82, Report No 11)
Figures for 1981 and 1982 have been calculated from: "Forbruker-og Administasjonsdepartementet (1981-82; Subsidies Provided for the Ministry of Consumer Affairs in respect of Consumer Price Regulations; VAT Compensation Grants in Respect of Foodstuffs under the Min. of Finance Budget). The figures in this table include subsidies for Northern Norway.
(*) Introduction of VAT compensation.

From the above table we see an increasing use of subsidies and VAT compensation in the first stage of the implementation of the NNFP. In 1981 there was a drastic reduction particularly in VAT compensation, while in 1982 there was a further reduction in the total amount of subsidies allocated and a small increase in VAT compensation in relation to the 1981 figure. Tab. 7.13 shows the levels of subsidies and VAT compensation at the time of the presentation of the NNFP to the Storting in 1975.[28] From Tab.7.14 we can note that in autumn 1975 the milk and dairy products obtained more than half of the total subsidies and VAT compensation distributed; this table shows that the same

trends persisted in 1981 and 1982.

Tab. 7.15 shows that after two years of implementation the health goals of the NNFP had little impact on food items subsidized. Subsidies for butter, margarine and meat, for instance, were still not consistent with the newly-established NNFP's health goals.

Tab. 7.16 summarizes the development of subsidies levels and VAT compensation at the beginning of the NNFP and in the early 80's.

Tab. 7.17 shows the trends in the Consumer Price Index [CPI] and food prices during the first stage of NNFP implementation.

Tab. 7.13 - Allocations of Subsidies and VAT Compensation øre per Kg/liter on November 1, 1975

Food Items	Subsidies	VAT Comp.	Total
Whole Milk	111.7	23.0	134.7
Skimmed Milk	94.9	15.0	104.9
Cheese (average)	271.0	200.0	471.0
Butter	48.0	182.0	230.0
Flour (average)	108.6	21.0	129.6
Margarine (average)	106.0	87.0	193.0
Meat (beef, veal, reindeer)	176.0	254.0	430.0
Meat (lamb, goat)	331.0	254.0	585.0
Meat (pork)	--	165.0	165.0
Fish (unprocessed)	--	140.0	140.0
Fish (processed)	--	277.0	277.0
Frozen Fish (unprocessed)	--	140.0	140.0
Frozen Fish (processed)	--	277.0	277.0
Whale meat	--	277.0	277.0
Frozen whale meat	--	277.0	277.0
Canned fish	--	190.0	190.0

SOURCE: Report No 32 (RNMA, 1975-76)

Tab. 7.14 - Allocation of Subsidies per Food Items (Million NKr) - 1975, 1981, 1982

	1975	1981	1982
Milk and dairy Products	814.0	1328.0	1232.6
Margarine	84.8	8.0	--
Flour	304	251.6	363.1
Meat (total figure)	128.1	324.6	324.7
Fish (total figure)	--	42.5	9.0
Special Subsidies to Northern Norway	21.5	48.0	50.0
Petrol and Motor diesel	2.0	24.0	45.0
Total	1354.4	2026.7	2024.4

SOURCE: Report No 32 (RNMA, 1975-76); Forbruker-og Administrasjonsdepartementet (1975; 1981; 1982)

Tab. 7.15 - Total Allocation of Subsidies and VAT Compendation per Food Items in 1978

	Øre/Kg-l	Million NKr
Whole Milk	194.1	1193.8
Skimmed Milk	202.2	262.9
Condensed Milk	120.0	0.6
Butter	242.0	42.4
Cheese (average)	721.0	295.7
Beef, veal & reindeer meat	688.0	481.6
Lamb & goat meat	843.0	143.3
Pork	276.0	220.8
Poultry	320.0	27.2
Margarine (average)	193.0	154.4
Bread flour	103.4	305.0
Fresh fish unprocessed	182.0	47.3
Fresh fish processed	364.0	54.6
Frozen whalemeat	364.0	3.6
Canned Fish	190.0	26.6

SOURCE: NNC (1978, "Aarsmedling 1978 og Rapport om Matforsyning i Norge", Oslo)

Tab. 7.16 - Subsidies and VAT Compensation in 1975, 1980, 1981 - (Subsidies and VAT Compensation are in øre per liter or Kg)

	1975		1980		1981	
	Sub	VAT	Sub	VAT	Sub	VAT
Whole Milk	117.7	23	164	30	154	40
Skimmed Milk	94.9	15	178	24	168	34
Cheese	271.0	200	401	320	304	417
Butter	48	182	--	242	--	--
Margarine	106	87	87	106	--	--
Flour	108.6	21	87	23	85	23
Beef, veal & reindeer meat	176	254	263	425	301	--
Lamb & goat meat	331	254	418	425	515	--
Pork	--	165	--	276	--	--
Fish:						
Processed	--	277	--	364	153	--
Unprocessed	--	140	--	182	76	--
Frozen whale	--	277	--	364	--	--
Canned fish	--	190	--	190	--	--

SOURCE: Report No 11 (RNMSA, 1981-82, Table 12)

Tab. 7.17 - Developments in Food Prices and in the Consumer Price Index from 1974 to 1980 (*)

	1974	1975	1976	1977	1978	1979	1980
Meat	100	116	132	144	158	167	180
Fish	100	102	103	114	123	127	144
Milk	100	122	133	118	124	133	176
Skimmed Milk	100	143	166	143	152	167	229
Cheese	100	117	128	121	129	143	179
Butter	100	117	124	126	131	133	142
Margarine:							
animal	100	104	102	127	130	135	142
vegetable	100	90	75	92	97	101	100
Flour	100	112	117	123	131	132	146
Vegetables, fruit	100	116	126	137	147	155	170
Potatoes(**)	100	130	179	154	136	169	202
Sugar	100	141	77	49	48	56	103
Food total	100	115	127	137	145	151	169
CPI	100	112	122	133	144	151	169

SOURCE: Report No 11 (RNMSA, 1981-82)
(*) August 1980 figures; (**) Potatoes and potatoes products

From the above tables it can be concluded that:

1. At least until 1978 food pricing measures were not influenced by the health goals of the NNFP. They were mainly concerned either to regulate the Consumer Price Index [CPI] or to maintain or improve stability of farmers' incomes.[29]

2. The desire to stimulate domestic production and protection in the farming and fishing sector is also reflected in pricing policy means.

3. The withdrawal of all subsidies on butter and margarine in 1981 conforms to the health goals of the NNFP (although it can conflict with its agricultural goals).

4. The decision to give priority to subsidies on dark meat (e.g. beef and mutton), instead of pork and poultry, is more coherent with the global and agricultural goals of the NNFP rather than with its health goals (see: Section 7.2.1).

7.5 Uncertainty in the Use of Facilitating Policy Means within the NNFP

This section briefly describes the uncertainty associated with the use of the main facilitating policy means used in the NNFP. As many sources of uncertainty have already been discussed in the previous Sections, here I shall concentrate mainly on pricing policy measures.

First, a general consideration must be made on the context within which pricing policy measures are used. The existence of international trade agreements means that the prices of certain foods are, to a smaller or greater extent, influenced by variations in the international market; while others are more largely determined by internal market factors. Reports No 32 and No 11 claim that domestic prices for sugar, margarine, oil and fats as well as several types of vegetables and fruits vary according to international market prices (see: RNMA, 1975-76, Chapter 6, Section 6.2.5; RNMSA, 1981-82, Chapter 6, Section 6.3.4). Tab. 7.16 shows, however, that, apart from margarine, none of these food items have been eligible for either subsidies or VAT compensation. This suggests that pricing policy measures are adopted in a more or less "certain" context. Thus, the chances of influencing food consumption through prices seems quite high in Norway.

However, I have demonstrated in Section 7.3.1 that trends in consumption show both positive and negative developments. By and large, this can be explained either in terms of price

elasticity [30], or in terms of consumer attitudes and psychological or cultural attachment to particular types of foods. Both explanations are dependent on several factors such as the size of the price reduction (or increase), the consumer's income and the consumer's wishes and perceived needs (or possible combinations of such factors).[31]

Some experts in the Delphi exercise (see Appendix B) argue that in order to minimize the uncertainty of the impact of pricing measures it is necessary to gain a better understanding of these factors. In commenting on Policy Issue No 17 ("Re-arrange current consumer and producer subsidies in order to achieve the policy goals outlined in Report 32"), the majority of experts looked at its resolution as desirable but not readily feasible. Some comments show the complexity as well as the ambiguity of the issue:

> (..) I am not quite sure how much subsidies really affect consumption. It is important to know more and try new ways."
>
> "Consumer and producer subsidies re-arranged in order to achieve policy goals of Report 32 alone would be counter effective for some of the goals of agricultural policy in the current situation; namely: income goals (..)." (First and Final Delphi questionnaires, Comments on Policy Issue No. 17, reported in Appendix B)

Second, the rationale of Norwegian pricing measures assumes that the consumption of subsidized foods is greater than would have been the case without subsidies. But, if we consider Tab 7.17 (on food prices and CPI trends), Tab. 7.8 (on the composition of the Norwegian food consumption), and Tables 7.12; 7.14; and 7.16 (on the development of subsidies

and VAT compensation), we can conclude that pricing policy measures have not been entirely successful in bringing about desired changes (see: Section 7.3.1).

However, it would be wrong to evaluate pricing policy in isolation, as the NNFP is characterized by an intersectoral approach. Yet, there is still uncertainty surrounding facilitative policy measures within an intersectoral approach. In fact, different NNFP policy means may have impact on different time schedules. Health education, for instance, has generally an impact over a longer term than certain types of price increases or legislative measures. Two problems arises here:

(a) The lack of impact of a particular policy means (e.g. pricing policy) can be influenced by lack of effect, or delayed effect, in other policy means.

(b) An effective blend of policy means must be searched for not just in quantitative terms but also in qualitative and temporal terms.

Failure to address the above problems will of course increase uncertainty. Theoretically speaking, better evaluation and use of interactive learning processes could be advantageous in coping with uncertainty within the NNFP (see: Chapters 9 and 10).

Third, it would not be unfair to argue that the government could do more to further the health goals of the NNFP as reflected in the present subsidy scheme. Pricing measures could also be improved to better accomplish redistribution. Both in terms of redistributive goals and health goals there would be room for: (i) the inclusion of items presently not subsidized; and (ii) applying a

different weighting to some of the items which are already on the subsidy list.

Blythe (1978a) explores the above issue in detail. Potatoes, for example, are not among the subsidized food items. Flour for bread is subsidized, but oatmeal, flaked oats and barley are not. According to Blythe (op. cit.) the aims of the NNFP are thwarted to varying degrees by these omissions. In particular:

i) It is uncertain that the aim of increasing consumption of complex unrefined carbohydrates will be achieved without subsidizing potatoes and certain cereals;

ii) Potatoes, oats and barley are items which Norway can produce domestically. Thus, their inclusion in the subsidy scheme would be in line with the self-reliance component of the NNFP;

iii) Potatoes and oats both figure prominently in the diets and budgets of large families and low income groups (see: Aasness, 1979). Thus, failure to subsidise these items conflicts with the intention:

> "(..) to allocate subsidies and the compensation for the value-added-tax in such a way that these instruments will particularly benefit families with children and consumers with low incomes." (RNMA, 1975-76, p. 10)

Finally, the above considerations are particularly relevant policy issues after the 1981 change in government [9], and its intention drastically to diminish tha amount of VAT compensation allocated. Uncertainty exists as to the effect of these reductions on the intersectoral action proposed by the NNFP. Thus, as there has been a shrinkage in the amount of subsidies (particularly VAT compensations; see Tab. 7.12), such subsidies are (and will be) a hotly debated political question where many diverging views are held and different interest groups are involved in influencing favourable allocations. It is therefore quite

uncertain how the health lobby will be able to tackle other powerful and well-organized interest groups without having to retreat to the use of only educational policy means for the achievement of the NNFP health goals.

7.6 Conclusion

The NNFP, analysed in this Chapter, undoubtely represents a much more structured approach to health promotion than the Canadian one, examined in Chapter 6. The assumption that certain causual factors can be addressed, in spite of the uncertainty related to health and diet and to the effectiveness of potential policy means, is present in both approaches. However, the recognition that nutrition policy cannot be conceived separately from food policy is peculiar to the NNFP. By contrast with the individualism of the Canadian policy, with its emphasis on individual responsibility and change of behaviour through persuasion, the NNFP attempts to manipulate the environment in such a way as to make it easier for individuals to make "healthy" choices (see: Winikoff, 1977; Ringen, 1977b; 1979; 1983; Milio; 1981b; Ziglio, 1983e; Robertson, 1983a; 1985).

The presence of an administrative framework within which nutrition and food-related matters are discussed at a very high political level is also an important feature of the NNFP. In contrast with the kind of "disjointed incrementalism" present in Canada, the decision-making process characterizing the NNFP appears to be inspired by a "guided incrementalism" incorporating also some features of a mixed-scanning model (see also Chapter 9, Sections 9.1.2 and 9.1.3). In the NNFP policy-making model fundamental goals are identified (here is the link with a mixed-scanning model; see: Chapter 9, Section 9.1.3), and a rather incremental process is set in motion to achieve those goals.

However, it would be wrong to conclude that the Norwegian approach to health promotion policy in the area of nutrition represents a model that every developed nation should follow, or that it is not affected by major obstacles. Further to the uncertainty and criticisms made in the previous Sections, I would like to make two final observations.

Firstly, it is important to recognize the role played by the agricultural sector in Norway. This sector is mainly "import-oriented". Generally speaking, in situations where agriculture makes a positive contribution to the balance of payments (as, for instance, in Canada) the system becomes more resistant to change (particularly in periods of economic recession). Paradoxically, in countries such as Canada, the agricultural sector is almost more an obstacle than an incentive to furthering nutrition policy (see: Chapter 6, Sections 6.2; 6.3). However, the need to strengthen the agricultural sector in Norway (with its characteristic of producing fat; e.g. dairy products and meat) may diminish the role played by facilitating policy means (e.g. pricing policy) and their impact in influencing dietary changes (see below).

Secondly, the Norwegians face the following dilemma: at present consumer food subsidies reflect three strong pressures, namely: (i) the need to stabilize the Consumer Price Index and protect a delicate prices and incomes agreement; (ii) the need to stimulate the consumption of certain key domestic products; and (iii) The objective of

encouraging healthier diets.

Historically consumer food subsidies have favoured the first two needs; but a continuation of pricing policy along these lines will make it difficult to achieve the NNFP's health goals. On the other hand, if pricing measures are used to influence consumption in the direction of health goals, or if the public begins to respond to nutritional recommendations, then the agricultural sector will encounter increasing problems and the government may have to rethink its approach to the rural sector (see: Blythe, 1979). If this is the case, the feasibility of such an approach to agriculture seems extremely uncertain. In fact, in terms of product mix, Norwegian agriculture is rather inflexible. Only 3 per cent of the total land is arable and, considering the severe conditions under which agriculture operates in Norway, the products that such a sector can offer are not the most desirable in order to fulfil the health goals of the NNFP (see: comments on Policy Issues Nos. 14 and 17 in the Delphi questionnaires in Appendix B; see also: Blythe, op. cit.; Interview with Dr. G. Botten, Institute of Preventive Medicine, Univ. of Oslo, conducted in Oslo in Nov. 1982).

The extreme alternative, namely providing a supply of "nutritionally desirable" food purely by controlling imports, might still be possible. However, it would be very undesirable politically and the NNFP's social and global goals would be denied. The comments made on Policy Issue No. 15 ("Increase import of certain quality of agriculture

products so that food of higher nutritional value may be purchased at a lower price than if produced locally") confirm the undesirability of taking this avenue (see: Appendix B).

A quotation from a paper presented by the NNC's staff sums up the development of the NNFP and its potential outlook:

> "We have made a good start, but realize that we still have a long way to go before reaching our nutrition policy objectives. The circumstances under which action is taken will constantly vary, and even though the major goals will remain unchanged, the steps taken will always have to be adopted to the actual situation. We still have many challenging tasks before us!" (NNC, 1982, November 22-26, p. 26)

NOTES

[1] The Lapp population, numbering 50,000 is still the main minority ethnic group.

[2] Interview conducted by Mr. Colin Blythe on Wed. 18th Oct., 1977, kindly made available.

[3] Another (more sceptical) reason for creating the NNFP in 1975-76 was speculated by Dr. G. Botten of the Institute of Preventive Medicine, Univ. of Oslo, in an interview conducted in Oslo in November 1982:

> "The Min. of Agriculture's anxiety over the declining farm sector and the need to maintain its important role within the Norwegian politics. (..). In the mid 70's the Min. of Agriculture was more open-minded about the possibility of forming an "alliance" with the Min. of Social Affairs and its Health Directorate. By reinforcing the importance of food and nutrition, the Min. of Agriculture was indirectly reinforcing its own key position."

[4] The use of wholesale food figures as consumption indicators leads to an overestimation of consumption data, particularly for certain products. In fact, actual consumption is less than that indicated by wholesale figures because of wastage during processing and distribution. Nevertheless, under stable conditions wastage can be assumed fairly constant over short-term periods. Wholesale figures can therefore be used to illustrate developments in consumption.
Report No 32 and No 11 (RNMA, 1975-76; RNMSA, 1981-82) note that figures for grain, milk, cream, cheese, butter, meat and margarine are reliable. Statistics about fish, potatoes, vegetables, fruit and "other fats" provide a less satisfactory basis for assessing both food production and consumption.

[5] Throughout this century life-expectancy at birth has greatly increased. In 1978 Norwegian women had the highest life-expectancy in the world, while male figures were second only to Sweden. However, Report No 32 (RNMA, 1975-76) notes that life-expectancy of men over 45 years has not increased significantly. Between 1950 and 1970 the number of years of life remaining for men aged 50 actually showed a decline (see: RNMA, op. cit.).

Average Life-Expectancy at Birth in Norway

	MEN	WOMEN
1891-1900	50.4	54.1
1931-1940	64.1	67.6
1951-1955	71.1	74.7
1966-1970	71.1	76.8
1978	72.3	78.7

SOURCE: Appendix 1 to Report No 32 (RNMA, op. cit.); Eeg-Larsen and Vellar, (1981-82).

[6] It should be noted however, that, compared with other industrialized countries, Norway is not in the worst position. In 1974, (namely, immediately before the formulation of the NNFP), mortality figures (deaths per 100,000) from cardial infarct in men aged 55-64 were: Finland, 1007; Scotland, 952; USA (whites), 814; England and Wales, 733.6 and Norway, 589.8. However, for the same year the other two Scandinavian countries were in a better situation than Norway: Denmark, 584.9; and Sweden, 543.4 (see: Eeg-Larsen and Vellar, 1981-82).

[7] The average proportion of fat in the energy supply of Norwegian diet increased, between 1953/55 and 1974, from 37.7 per cent to 42.5 per cent (see: Choen, 1980, p.7).

[8] The ratio at the time of the formulation of the NNFP was somewhere between 1:4 and 1:3 (RNMA, 1975-76).

[9] The health goals and nutritional guidelines of the NNFP have not been changed since 1975-76, despite the fact there has been a change of government in 1981, when the Conservative Party won the election after years of labour governments.

[10] Among the various sub-committees illustrated in Fig. 7.A, it is worth mentioning that: The sub-committee on nutrition deals with all matters of nutrition science, such as norms for recommended nutrient intakes, clinical nutrition, etc. The sub-committee on cereals deals with research and practical developments with regard to cereals, and promotes the use of wholemeal flour and other grain products. The sub-committee on nutrition education cooperates with the Information Service of the Norwegian Government and with voluntary organizations (e.g. The National Association for Diet and Health) and with the Min. of Church and Education, the media, etc., to carry out teaching and education projects (see: RNMSA, 1981-82, Chapter 8). It also ensures that educational and teaching activities concerning nutrition are scientifically well-founded. The sub-committee on food supplies reports on the production, supply and consumption of foods and assesses developments in relation to the goals of the NNFP. The sub-committee on institutional management offers nutritional advice to large households such as hospitals, hotels, military barracks, and so forth.

[11] H5 also carries out secretarial functions for the steering committee of the Food Control Board, responsible for dealing with all matters concerning nutrition and food control in the Min. of Social Affairs (see: RNMA, 1975-76; RNMSA, 1981-82, Chapter 8).

[12] In Norway it is also quite common to find individuals with both a role as decision-makers, for example as head of the NNC, and as professor in one of the Norwegian Universities. Furthermore, the role of the "bureaucrats" is also very relevant in understanding policy-making processes in Norway (see: Ringen, 1977a).

[13] The difference between the Norwegian and Canadian approaches to nutrition and food policy as a health promotion strategy is self-evident, Canada's being very heavily dependent on educational measures and, to a lesser extent, regulatory policy means (e.g. nutrition labelling).

[14] In this Chapter, I argue that after the first stage of implementation the NNFP has reached a point where health and agricultural goals are in conflict (see: Sections 7.5 and 7.6). This does not mean that nowadays the NNFP is "unrealistic" and/or "unworkable", but rather that the difficulties in combining agricultural interests and health considerations are bigger than in 1975-76. Thus, the NNFP's planners are indeed in a situation where policy-making and planning approaches capable of coping with uncertainty in a rapidly changing environment would be highly desirable.

[15] Food policy has, of course, other goals besides health. Nevertheless, it is important - in the light of social welfare - that food policy minimizes conflict with health criteria.

[16] As we have seen in Chapter 6, (Sections 6.2; 6.3), Canada also attempted, in the late 70's, to formulate a coherent nutrition and food policy. Unfortunately this attempt failed and the issue has not been considered in the subsequent agricultural plan for the 1980's.

[17] Wholesale statistics related to food supplies are based on production and import statistics, with deductions for export, animal feed, seed and other non-food uses. For their reliability in assessing food consumption trends see: note [4].

[18] Report No 11 (RNMSA, 1981-82) points out that a large adjustment was made in 1975, which affected some of the figures for the previous years. As a result, some of the sets of figures given in this Report are not exactly the same as those published in Report No 32 (RNMA, 1975-76). Since 1975 the Central Bureau of Statistics has carried out annual consumption surveys in representative private households. The survey period is 14 days. In each household, foods bought or produced for private consumption are recorded. Thus, these data estimate more accurately actual consumption trends than wholesale figures. The publication of data for 1975 to 1979 shows that the trends affecting most type of foods appear to be very similar both

by using wholesale figures and consumer surveys data. For fish and potatoes, however, the two types of data appear to show different trends (see: Central Bureau of Statistics of Norway, 1981; NNC, 1982, "Annual Report on Norwegian Food Supply").
Bearing in mind what has just been said, in this Chapter I have chosen to use mainly data on wholesale statistics because they allow me to cover a longer period: 1970-1981 instead of 1975-79. For a thorough discussion of changes in Norwegian diet covering the period 1975-79, the study carried out by Ogrim et al. (1981) probably offers the most reliable figures.

[19] The major pieces of food legislation are:

The Food Inspection Act of 19 May 1933 concerning the manufacture, composition and treatment of food. This Act enables the Ministry of Social Affairs to issue food regulations, including food labelling provisions. Its main objective is the protection of public health, although it is also aimed at ensuring fair practice in food trades.

The Agriculture products Quality Act of 17 June 1932 aims at ensuring the quality of agricultural products which are exported or imported and distributed across the Norway. This Act is administered by the Min. of Agriculture.

The Margarine Act of 1948, which is also administered by the Min. of Agriculture. The main objective of this Act is to ensure that margarine products are not confused with milk products such as butter or cream.

The Meat Inspection and Slaughterhouse Act of 12 April 1957 covers matters such as the transport of meat and meat products, the control of raw meat before processing, etc.. This Act is administered by the Division of Veterinary of the Min. of Agriculture.

The Fish and Fishery Products (Quality) Act of 28 May 1959, which is administered by the Min. of Fisheries. The main objective of this Act is to ensure that fish distributed in Norway or exported is handled in the best possible manner and fulfils hygiene and quality requirements.

The Consumer Goods (Labelling) Act of 24 May 1968, which is administered by the Min. of Consumer Affairs and Government Administration. The main objective of this Act is to ensure that the consumer has sufficient information, when purchasing food, (i.e. name and composition of food, weight, freshness, storage instruction, name of manufacture, producer or importer). General labelling regulations for prepackaged food were issued in pursuance of this Act in 1975 (see: Min. of Consumer Affairs and Gov. Administration, 25 July, 1975).

The Food Control Coordinating Act of 17 March 1978 (in force from 1 January 1980), which created a coordinating Food Control Board (see: Fig. 7.A), within which the various Ministries remain responsible for incorporating nutritional considerations into their respective sets of rules; the Food

Control Board is also responsible for ensuring that this is done. This Act is particularly relevant because it was enacted after the formulation of the NNFP. Its rationale lies in co-ordinating the efforts of the various Ministries to facilitate the distribution of foods that are desirable from a nutritional point of view.

As we can see food legislation in Norway involves many Ministries. As far as food labelling legislation is concerned, it is administered by four Ministries: Min. of Social Affairs; Min. of Agriculture; Min. of Fisheries and Min. of Consumer Affairs and Government Administration (see: Min. of Consumer and Gov. Administration, 1975; Race, 1976; Food Safety Services, 1982).

[20] Given the preoccupation with heart diseases and cancer, the campaign concentrated on the need to eat less fat and more fibre. In practical terms the campaign reinforced the nutritional goals of the NNFP and in particular recommended that people should:
a) eat more: bread and cereals products, potatoes, skimmed milk instead of whole milk, fish, fruit and vegetables.
b) eat less: margarine, butter, edible oil, sugar, and meat.
c) substitute: some meat with fish.

[21] It is interesting to note, however, that Norway is a big exporter of fish. On a protein base calculation, Norway is a net exporter of protein (see: RNMA, 1975-76, Chapter 4, Section 4.6).

[22] Report No 11 (RNMSA, 1981-82, pp. 21-22) points out that:

> "The Area under grain continues to increase but less sharply than early in the 70's. The grain area in 1979 was 3,105,000 decares or about 37 per cent of all fully cultivated soil tilled. The area devoted to food cereals, i.e. wheat and rye, increased considerably in the first half of the 1970's, but has remained stable in recent years. In 1979 and 1980 the area under wheat was 150,000 decares, 50,000 decares lower than in the three preceding years.
> The area producing potatoes is lower than around 1970 and has also decreased somewhat since 1975. The area producing vegetables has remained fairly stable while the area devoted to berries increased a little in the first half of the 1970's and has remained stable since."

[23] The development areas under grain in the various Norwegian provinces from 1929 to 1978 can be seen in Tab. 18 of "Satens Kornforretning" (1979).

[24] In 1974 Margarine contributed 38 per cent of PUFAs in the Norwegian diet. Thus, reducing its use would tip the balance of fats in the diet further in the direction of saturated fats which is regarded as undesirable by the NNFP (see: C. Blythe, personal communication, 1984).

[25] It is interesting to note that Norwegian consumers always seem to have preferred lean meat, whether beef, pork or any other type. It must be said that Norwegians have been remarkably successful in research into breeding leaner pigs (see: Blythe, 1979), though this has been neglected with respect to sheep breeding (which, however, appears to be a much more complex area of research).

[26] It is obvious that the effectiveness of pricing policy is dependent on the various types of elasticity related to given products (see: Chapter 2, Section 2.2.2).

[27] Each Autumn the Norwegian government submits to the Storting the National Budget for the coming year. Amongst other things, the budget covers the year's allocations for food subsidies and compensation for Value Added Tax. Since the money used for both measures is derived from direct taxation, subsidies and VAT compensation are, in theory, ways of redistributing income by providing selective relief from indirect taxation. Such measures should therefore make lower income groups better off. However, in practice it depends very much on which items attract the largest subsidies (see: Blythe, 1978b).

[28] The tables of subsidies and VAT compensation presented in this Chapter exclude (unless otherwise stated) additional subsidies for Northern Norway. An additional range of subsidies (on certain foods or items such as petrol, coke, etc.) is available in Northern Norway in recognition of the special difficulties facing this area (e.g. severe climate, restricted growing season, transport cost, and so forth).

[29] For a thorough discussion of the concern to regulate the CPI in Norway during the 70's see the work of Blythe (1978b).

[30] Report No 32 (RNMA, 1975-76, Chap. 6, Sec. 6.2.5.1) points out that cereals, potatoes and milk are food items with very low demand elasticity (i.e. demand is relatively independent of price). However, the demand for potatoes declines with increased incomes while figures for skimmed milk indicate an opposite trend. Meat is an example of a product with somewhat larger demand elasticities than that for cereals and milk. Report No 32 (op. cit. p. 52) states that:

> "Calculations made in 1974 indicate a price elasticity for pork in the order of 0.3 to 0.7, and for beef in the order of 0.8 to 1.1. The income elasticities are estimated at 0.4 to 0.6 and 0.5 to 0.8 respectively."

Thus, these figures indicate that the demand for beef is more price dependent than for pork. Changes in price within these types of meats should therefore have an influence on reciprocal demand. However, this brings some problems for Norwegian planners (who want to stimulate the consumption of beef and mutton at the expense of pork as mentioned in this Chapter). In fact, the calculations in Report No 32 (op. cit.) imply that changes in the price of pork have less

effect on the consumption of beef than the reverse (this could then be a partial explanation of the withdrawal of subsidies and VAT compensation on pork in 1981).
Fruit, berries and vegetables present great variations within themselves. For example, vegetables such as cabbage and carrots have a low demand elasticity while tomatoes have a relatively high demand elasticity. Fish shows a relative low price elasticity and low income elasticity (see: RNMA, op. cit.; see also: Aasness, 1979; Blythe, 1978a).

[31] Meat consumption offers a good example here. Whether or not increases in meat consumption can be discouraged is an unresolved question at the present. The OECD Report on "Food Policy" of 1981 (OECD, 1981) in outlining the NNFP points out that meat possesses a relatively high income elasticity of demand coefficient, indicating that meat consumption is responsive to increases in income. Norway enjoys a high rising level of per capita income and less variation in income levels than most developed countries. This would explain the increase of meat consumption as associated with rising trends in real incomes, in addition to the effect of consumer subsidies on meat (e.g. beef consumption; see note [30]). A reduction in meat consumption in Norway seem very unlikely unless improvement in the concerted use of educational measures is pursued. This is a general problem within the NNFP as not all means of achieving the NNFP's objectives are known at present.

PART IV

INSIGHT INTO THE FUTURE DEVELOPMENT OF HEALTH PROMOTION POLICY

In this final part of the thesis I shall concentrate on policy-making and planning approaches adaptive to the conditions of uncertainty and rapidly-changing situations which are so familiar in the area of health promotion.

Chapter 8 comments on the uncertainties and difficulties in the development of nutrition policy as a health promotion strategy; it is concerned with identifying the main issues and boundaries of the problem, rather than proposing solutions per se. Although the Chapter contains many references to the Canadian and Norwegian policies (analysed in Part III), an effort has been made to structure it in such a way that its applicability to health promotion policy issues in Western developed countries can be easily seen.

Chapters 9 and 10 analyse the drawbacks in the present policy-making approaches when applied to the planning of health promotion. Chapter 9 demonstrates that in the presence of a radical shift in health policy (towards health promotion) none of the major approaches to health policy-making cope satisfactorily with uncertainty and the need for innovation. "Incrementalism" alone could not bring about such a big change. The "rational-deductive" approach could be hampered by the lack of information on the

components of health which have been neglected so far, or by its insufficient consideration of political variables. Theoretically speaking a "mixed-scanning" approach would stand a better chance of success, but no such approach is as yet well-established.

Leading on from the analysis of the Canadian and Norwegian approaches and Chapters 8 and 9 on the difficulties in policy developments, Chapter 10 maintains that, in the area of health promotion, planners and policy-makers face an unpredictable and rapidly-changing environment; yet they are using traditional planning processes which are no longer effective under such conditions. The aim of this final chapter is to provide a critical analysis of emerging concepts and theories which could be relevant to future policy-making in health promotion. It is striking that neither Canada nor Norway, despite having probably the most original approaches to health promotion in any Western developed countries, directly refer to these new concepts of planning and policy-making.

CHAPTER 8.: UNCERTAINTIES AND DIFFICULTIES OF DETERMINING HEALTH PROMOTION POLICY

This Chapter concentrates on the difficulties and uncertainties in policy determination in the area of health promotion. Special reference will be made to the way in which Canada and Norway have coped (or failed to cope) with these difficulties. Six main factors contributing to the ambiguous state of nutrition policy as a health promotion strategy in Western industrialized countries will be analysed:

(i) Lack of inter-departmental planning and integration;

(ii) Lack of agreement on approaches to planning;

(iii) Lack of social valuation expressed in terms of welfare criteria;

(iv) Ethical problems related to individual freedom;

(v) Uncertainty and the lack of knowledge of nutritional concepts; and

(vi) Difficulty in applying the concept of health to health promotion policies.

These issues are important both individually and interactively. Together they may form a barrier to innovation in the field of health policy.

Broadly speaking, many health problems related to lifestyle (smoking habits, unhealthy diet, drinking too much, sedentary life, drug addiction, etc.) and environment (e.g. air pollution) have been studied and re-studied, yet experts differ widely in their proposed strategies. The reason for this disagreement is partly that the problem is so complex that experts and administrators disagree about

the implications of any specific treatment modality.[1]

The concept of uncertainty, applied to health promotion policy, is multidimensional. Various sources of uncertainty arise in the course of any attempt to solve policy issues associated with the formulation and implementation of health promotion measures.[2]

8.1 Lack of Inter-departmental Planning and Integration

It has been mentioned already that effective health promotion policies should be able to affect lifestyle in order to maintain or promote health. This implies that our capacity to identify the living standards and causal factors operating on different social groups is a pre-requisite for the selection of measures relevant to health promotion. For example, the identification of measures relevant to improving the nutrition of a given population would involve calculating future crop-production yields. Moreover, it would be necessary to estimate the present and future costs of inputs, the extent and the nature of marketable surpluses, the nature of existing resource constraints (land area, water, labour, etc.). Other constraints, such as those imposed by the social structure of the community should also be considered (see: Payne, 1976). It is against this background that the dietary patterns and the health status of the population should be viewed.

If nutrition and health requirements are to influence agricultural or food policies, the latter should not continue to be based only on the level of effective demand for food, as is the case in Canada (see Chaper 6; particularly Sections 6.2 and 6.3). A shift is desirable because the concept of "effective demand" takes no account of the factors which determine particular purchases or of the consequences of those purchases. For planning purposes, in fact, the application of the concept of demand for food is based on several assumptions:

a) It is assumed that when making a purchase, the consumer is somehow consciously going towards a maximization of his welfare.

b) The above assumption implies that the consumer is in possession of adequate knowledge of dietetics and other principles of health, and the necessary information about the food in the market.

c) It is also assumed that the consumer makes a free choice in the market and that his choice is an objective indicator of personal preference and, on a larger scale, of collective inclination. This indicator would therefore be accepted as an objective mechanism in determining food policies and supplies.

There is ample evidence that these assumptions are an oversimplification of reality. For example, the consumer may place such a low value on his health that its relation to food consumption becomes irrelevant in the operation of food planning. Moreover, the general assumption that individuals make decisions guided by knowledge of the health implications of those decisions can be disputed, because of the effects of competition of food purchases with other consumer purchases. The above assumptions should not form the basis of policy formulation in agriculture if social welfare is to be pursued (see: CAS, 1979, pp. 104-106; see also Section 8.3).

In policy formulation the welfare of the consumer should be given more priority (see CAS, op. cit., Milio, 1981b; see also RNMA, Report No 32, 1976-75), , but in order to do so we should be able to devise an approach capable of integrating welfare criteria into the formulation of agricultural and food-supply policies. Thus, collective approaches should make it easier for individuals to (a) identify and (b) maximize their own welfare by providing appropriate contexts and facilities. In this perspective

health should not be seen as the ultimate goal for the individual but as an instrumental one for the maximization of his welfare. It is therefore extremely important, in our formulation of nutrition policy as a health promotion strategy, to link the concept of health with that of welfare in order to avoid the pursuit of the mere ideology of "healthism" (see: WHO, 1984a).

From what has been said above we should be better able to integrate individually determined and collectively determined welfare. The 1984 WHO document (WHO, 1984a) is aware of this need for minimizing conflicts between individually and collectively determined provision of welfare. The WHO document defines health promotion from a perspective based on a conception of "health" as the extent to which an individual is able, on the one hand, to realize aspirations and satisfy needs; and, on the other hand, to change or cope with the environment.

> "Health promotion involves the population as a whole in the context of their everyday life (..). This requires full and continuing access of information about health and how it might be sought for by all the population (..). Health promotion, therefore, requires a close cooperation of sectors beyond health services, reflecting the diversity of conditions which influence health. Government, at both local and national levels, has a unique responsibility to act appropriately and in a timely way to ensure that the total environment, which is beyond the control of individuals and groups, is conducive to health." (WHO, op. cit., p.5) (Emphasis added)

According to the CAS Report No 5 (op. cit., p. 14) this broad approach to planning:

> "(..) requires that a social revaluation of foods based on health and welfare criteria becomes the basis for deciding national food

supply requirements".

Although this would, in my opinion, be highly desirable, any country adopting such an approach would have to examine its technical, political and ethical feasibility.

In the analyses reported in Chapters 6 and 7 I have demonstrated that because of socio-economic, as well as cultural determinants, the feasibility of a comprehensive nutrition and food policy is greater in Norway than in Canada (see: Chapter 6; Sections 6.2; 6.3; Chapter 7; Section 7.1). In Canada, political, economic and ethical factors ruled out the attempt to address, through the FSC, nutrition-related matters by using an interdepartmental planning approach. In Norway, conversely, the establishment of the ICC, H5, and the reorganization of the NNC represent a positive step towards a more comprehensive approach in the area of nutrition and food policy as a health promotion strategy. Nevertheless, even in Norway further steps should be taken to minimize fragmentation in the overall policy-making process (with its potential negative tendency towards a "disjointed incrementalism") (see: Chapter 7; Section 7.5).

We can conclude by saying that as far as health is concerned, policies related to farming, the economy and social welfare are inter-related. These inter-relationships, of great relevance to the individual's freedom and quality of life, are all too often neglected by policy makers (see: CAS Report, op. cit.; Draper et al., 1977; 1980; Popay et al., op. cit.; Powles, 1973; 1977;

Milio, op. cit.; Hancock, 1980; 1980, March; 1982a; 1982b). Inter-departmental planning and integration would be highly desirable activities. However, in Western industrialized nations, doubts arise as to their feasibility under present circumstances. The approach chosen by Norway, in spite of the weak points alluded to in Chapter 7 (sections 7.5; 7.6), shows that policy action in the field of health promotion is not necessarily confined to health education alone (although information and education are necessary components of health promotion).

In order to achieve more adequate planning, elements of an interdisciplinary approach should therefore be put forward. As has been shown in Chapter 7, the way in which the Norwegian NNFP addresses nutrition-related matters is much more comprehensive than the Canadian approach analysed in Chapter 6.

8.2 Lack of Agreement on Approaches to Planning

There are two main explanations for disagreement on planning approaches to food and nutrition policy:

(a) ideological reasons (which are reflected in disagreement as to the desirability of a particular approach); and

(b) technical reasons (which are reflected in disagreement on the estimation of feasibilities from a technical point of view).

These two sets of reasons are not always clearly distinguishable and some overlapping occurs. The underlying reasons for disagreement are given in Chapter 9 where the major approaches to policy-making are analysed. Here I shall limit the analysis to conceptualizations of models of nutrition and food policy and their effect on planning.

According to Beaton (1975), food and nutrition policy approaches are inspired by two prescriptive models (see also interview with Prof. G. Beaton, carried out in Toronto, May 1983, at the Dept. of Nutritional Sciences, Univ. of Toronto). The first model conceptualizes food and nutrition policy on a comprehensive basis. The following definition is an example of such a model (which, for what has been said in Chapter 7, fits well into the Norwegian NNFP):

> "Food and nutrition policy is a coherent set of principles, objectives, priorities and decisions adopted by the state and applied by its institutions as an integral part of a national development plan in order to provide all the population, within a specified time, with food and other social, cultural and economic conditions essential to satisfactory nutrition and well-being" (FAO-WHO-PAHO-UNESCO-UNICEF-ECLA, 1973).

The above model should be contrasted with the resolution

passed by the 9th Session of the FAO Conference in 1957, dealing with nutrition and food policy. This resolution is an example of the second model and recommended that member governments take due consideration of the nutritional needs of their populations in formulating and implementing policies and plans related to food production and consumption, including internal trade in foodstuffs (FAO, 1961; see also Beaton, 1975). This approach is much less comprehensive than the previous one. Here nutrition criteria are not imperative to bring agriculture and food policy in line with health policy. It is obvious, from the content of Chapter 6, that this model could be suitable in the Canadian context.

If taken literally the first model may present many planning problems, although it appears to have a stronger conceptual base than the second one. Beaton (op. cit., p. 8) suggests that a comprehensive approach to food and nutrition policy is highly desirable but tends to be impracticable for the following reasons:

(i) "It is unlikely that any goverment, even with the most highly developed technology, has the data acquisition and analysis system or an administrative system capable of the development and implementation of such a policy;

(ii) It seems improbable that, even if the policy development facility were available, very many governments could effectively resolve internal "political" problems involved in the resolution of ministerial, professional and community felt needs and priorities to a sufficient degree to implement policy decisions taken on a comprehensive basis at a very high (and therefore "remote") level" (Beaton, 1975, p.8).

The scepticism which emerges from the above quotation is reminiscent of the criticisms levelled at the rational-deductive approach to planning (see: Chapter 9,

Section 9.1.1). Nevertheless, for the reasons mentioned in Chapter 7 (see in particular Sections 7.1.1; 7.2.1; 7.2.2 and 7.2.3) a comprehensive model for nutrition and food policy, in Norway, must be judged as realistic (at least in its first stage of development of the NNFP) (see also note [14] in Chapter 7).

The second model, on the other hand, is too weak in providing clear recommendations on nutrition-related matters. It might be either dismissed in the decision-making process in a situation characterized by lack of inter-departmental planning as occuring in Canada (see Chapter 6; see also Section 8.1) or accepted as a reinforcement of incrementalism (see: Chapter 9; Section 9.1.2); thus ruling out the introduction of real innovative measures in the policy field. Many of the criticisms made of the incremental style of policy-making could therefore be applied here (see: Chapter 9).[3]

It is also clear that the data requirements vary between these two models. The nature (scope and detail) of desired information for planning should be related to the planning capabilities and objective. However, as far as nutrition and food policies are concerned, it is suggested that in very few areas of the world does a lack of data provide a valid reason for the absence of a planning process related to nutrition matters (see: Beaton, op. cit; see also Bengoa and Rueda-Williamson, 1975; Miller and Ljunguist, 1983; Miller, 1983).

In conclusion, the "real" planning problem is to establish a compromise between the ideal and the workable before considering data requirements. A mixed-scanning model of policy-making including both political and technical criteria (see: Chapter 9; Section 9.1.3), might be a workable planning procedure for the development of nutrition and food policy as health promotion strategy.[4] Thus, for countries such as Canada and Norway, willing to pursue health promotion objectives, the implementation of such a model is essential to the development of systematic yet politically acceptable policy-making and planning approaches. To date, however, neither country has devoted much time to debating this issue (see also: Chapters 9 and 10).

8.3 Lack of Social Valuation Expressed in Terms of Welfare Criteria

As both the quality and quantity of food are closely linked with the nutrition and health of the population, so the following general considerations can be made at this point. On the one hand, becouse food consumption is equated with the national food supply, it seems irrational for agriculture, or food-supply policies, to be determined without full consideration of their implications for nutrition and health (see: CAS Report No5, 1979). On the other hand, if agricultural and economic policies have to be aligned with health criteria, then the planning of nutrition and health promotion programmes must be able to integrate the question of health into a wider social, economic, and political context.

However desirable, this integration of health, social, agricultural and economic measures is difficult to realise and is in fact lacking in most Western countries - Norway's NNFP is a somewhat atypical experiment.[5]

Although the maintenance of collective welfare is a function of government, and can be affected directly or indirectly through social policy, the concern for collective welfare (including its health component) does not normally characterize the formulation of economic and agricultural policies.[6] As I have mentioned in Chapter 1, nutrition and health policies are significantly affected by the consequences of these policies. A social valuation of policies affecting health promotion would require measures

of welfare described in terms of nutrition and health status. To this end it would be desirable to define welfare in a way which would have operational meaning in policy formulation.

It has been suggested that "welfare" in this context would include all those aspects of diet which contribute to well-being. Generally speaking, these include the satisfaction derived from the type, quantity and range of foods in diets as well as their effect on nutrition and health (see: CAS, Report No. 5, 1979). Moreover, a classification of the population which is related to these welfare criteria both causally and administratively, and an understanding of the factors determining consumption patterns are vital ingredients in such measures (CAS, op. cit., p. 14; see also Chapter 2, Section 2.2).
In practice, however, it is not easy to incorporate these elements into the planning procedure. This again reveals the complexity of a comprehensive approach to health promotion (see: Sections 8.1 and 8.2; see also Section 8.5).

In food planning, for example, the aim would be to provide a social valuation of foods firstly in terms of established levels of welfare, defined by nutritional and health goals, and secondly in terms of the preferences for foods in diets. In order to achieve this aim food planning should:

a) provide measures of welfare which can be defined in terms of nutritional and health status, and can be related to measurable intakes of nutritents and foods;

b) divide the population into groups according to welfare levels, so as to assist in the administration of welfare

measures;

c) improve our understanding of the factors influencing food habits, and develop a monitoring system to follow the changes in the levels of welfare in the population. An analysis of the ideology of food, related to the social and economic functioning of society, is therefore necessary.

There is a patent difference between the ideal and the reality in most Western countries, including Canada and Norway. If nutritional and health goals are to be pursued, comprehensive and specific interventions are required. Policies are both necessary and possible, but could be better determined only after the clear recognition of these welfare goals. Again, in Western societies the desirability and political and ethical feasibility of developing health policies along these lines are much more in doubt than the technical feasibility of carrying out such a project. Economic and health considerations very often conflict with each other here (see: Milio, 1977; Mustard, 1977; Draper et al., 1980; Ringen, 1979). We have seen that in Canada, when the FSC was proposed, the former stood a better chance of being selected than the latter. As far as the Norwegian NNFP is concerned, the second phase of its development will reveal to what extent health criteria have been sacrified on the altar of short-term economic goals (see: Chapter 7, Sections 7.5; 7.6).

8.4 Ethical Problems related to Individual Freedom

All government decisions and legislation affecting the population it represents are related to an implicit ethic. The general ethical problem associated with the role of governments, in the health promotion area, can be summarized as follows: how far can governmental interventions attempt to affect the lifestyle of individuals? This complex issue is a typical ethical problem in pluralistic democracies (see: Johnson, 1976). Two inter-related aspects of the issue of individual freedom issues will be briefly explored here.

The first aspect is related to the concept of "individual freedom" per se. The distinction between "positive freedom" (or "freedom for") and "negative freedom" (or "freedom from") made by Berlin (1975) helps to illuminate the issue. The importance attributed to governments to create a supportive environment within which individuals can make easier choices for the maintenance or improvement of their health has been stressed throughout this thesis. According to this perspective, in the area of health promotion one should be sceptical about adopting doctrines based on the concept of negative freedom (i.e. freedom from governmental intervention). Such doctrines are normally justified through the claim that by leaving individuals to make their own decisions the ultimate end-product ensures that welfare is distributed in an optimum way throughout society, at both an individual and an aggregate level. In the development of health promotion policies a laissez-fair view of government

responsibility can be detrimental. In this area it would be naive to accept the residualist perspective on government decision-making put forward by Mill (1909, p.947):

> "In all the more advanced communities the great majority of things are worse done by the intervention of government, than the individual's most interested in the matter would do them, or cause them to be done, if left to themself (..) people understand their own business and their own interests better, and care for them more, than the government does (..)."

We can strongly criticize the above perspective because it implies the "freedom" to make decisions in isolation from the social and economic conditions in which people live, and ignores the fact that the power to exercise such freedom is constrained by one's access to economic and other resources which are distributed unequally within society (see: Robertson, 1985a; McCloskey, 1965; Taylor-Gooby and Dale, 1981, Chapter 6; see also George and Wilding, 1976, Chapter 6; Holman, 1973).

The concept of "positive freedom" fits better in a conceptualization of health promotion which is not limited to an emphasis on mere individual responsibility for health, but which conceives it as requiring an active government action, at both local and national levels, to create an environment conducive to health. The ethical, and as yet not entirely resolved problem, is to strike a balance between public and individual responsibility and action for health. In supporting this perspective we must be aware of the considerable moral dilemma for the cause of individual liberty and avoid moving over into an ideology rigidly prescribing what individual should do, how they should

behave and in which environment they should live (for further elaborations of the different perscectives on the issue of individual freedom see: Berlin, op. cit.; Rescher, 1972; Roos, 1973; George and Wilding, op. cit.; Johnson, 1976).

To sum up, in Western countries great importance is attributed to the right of people to choose.[7] In pluralistic societies there is a sort of fear that certain policies or interventions might somehow erode the individual's freedom to choose (for an exploration of this issue see: Johnson, op. cit.; Robbins, 1978, pp. 11-12; CAS Report No 5, 1979, pp. 106-107). The contents of Chapters 6 and 7 reveal that this has been a major obstacle for a comprehensive approach to nutrition policy in Canada, but less so in Norway (see also the analysis of the Lalonde Report in Chapter 4, Section 4.2).

The second aspect of the issue of individual freedom is related to the way in which governments and other institutions attempt to change people's lifestyle. Robertson (1983a) notes that there has been considerable discussion over the relative merits of attempts to effect lifestyle changes through "blanket" programmes of advertising aimed at all members of the community (including also individuals "not at risk"), as opposed to identifying "high-risk" groups of individuals in the community, and concentrating one's efforts on them. The concept of health promotion itself focuses more on "mass programmes" than on specific target groups. In fact, it conceives the

population as a whole, rather than focussing on people at risk of specific diseases (see: WHO, 1983; 1984a; 1984b), thus we are brought back to the ethical problem discussed above.[8]

At any rate, a nation willing to develop health promotion programmes, such as those proposed in the Lalonde Report or the NNFP, must also deal with these kinds of ethical problems. In this respect an emphasis on health promotion could contribute to a change in the "socially prevailing" ethical view of the roles of government and individuals in improving people's health status.

8.5 Uncertainty and the Lack of Knowledge related to Nutritional Concepts

It has been noted that although considerable information on nutrition matters is now available, it is not often in a form which is descriptively and analytically useful (see: CAS, op. cit., pp. 36-40 and 80-86). There has been considerable confusion and no clear agreement about nutritional terms such as "dietary standards"; "requirements"; "risk of inadequacy"; and so forth (see: DNH&W, 1979c; 1983).

"Nutritional status" has been defined by Greaves et al. (1974) as:

> "(..) that condition of the health of people that can be attributed to the foods they habitually consume."

Foods are eaten but it is nutrients that are required for body growth, functioning and reproduction. It must be added that factors such as age, sex, level of physical activity and general health status, determine also the amounts of different nutrients required by individuals. Thus, the amount of nutrients required does not depend only on their biochemical role and not all of them ought to be consumed daily as the body has the capacity to store certain nutrients.

With the above premises in mind, I shall summarize, in Sections 8.5.1 and 8.5.2, the major issues involved in introducing nutritional concepts into health promotion policies. These issues are relevant to the development of nutrition policy in both Canada and Norway.

8.5.1 Uncertainty Regarding the Total Number of Essential Nutrients and Estimates of Human Nutrient Requirements

The total number of nutrients which are to be considered essential for the life of an individual is not known definitely. In 1975, for instance, Wretlind (1975) described 30 essential nutrients but, as knowledge expands, others may be discovered. In addition to this, nutrition scientists do not totally agree as to the amount of each nutrient required (CAS, op. cit., pp. 36-37; see also Journal of American Dietetic Assoc., 1975, Vol. 66, pp. 9-11).

Truswell (1976) points out that estimates of human nutrient requirements are based on limited data which are largely derived from experiments of questionable scientific value. Hegsted, in 1975, notes that during the last three decades there has been considerable development in the nutritional sciences. This has, of course, played an increasingly important role in defining nutrient standards.

> "However, such information remains fragmentary, and current standards represent judgements based on experimental data obtained with human subjects, extrapolations from animal studies, and estimates of actual intakes in apparently healthy people. (..) It is apparent that, since different committees arrive at different judgements, (..) opinions as to the reliability of the data or the objective of the standards must vary depending on the expertise of the individual committee members, their interests or experience" (Hegsted, op. cit., pp. 13-14).

Hegsted (op. cit.) claims that it is rarely possible to identify by what process these judgements, and the final value of the standards, are reached. Although knowledge in

this field is far from complete, we must acknowledge that Norway and Canada are two of the leading countries in research in this area. Of particular importance is the work of the Bureau of Nutritional Sciences of the Dept. of National Health and Welfare in Canada and that of the Institute for Nutrition Research of the University of Oslo in Norway. The recently published Canadian work on "Recommended Nutrient Intakes for Canadians" (DNH&W, 1983) is also significant.

8.5.2 Uncertainty as to the Best Type of Nutritional Guidelines for Health Promotion Policy

In order to assess the adequacy of diets, we need a standard based on nutrient requirements. Four issues are crucial for this procedure.

Firstly, there is a certain degree of uncertainty attached to requirement figures even for a defined physiological group.[9] Nutrient requirements or dietary standards are based on considerations inherent in the "average need". Many studies have been completed on the pitfalls of placing unwarranted faith in figures that are only an average (Wheeler, 1975; Hegsted, 1972; 1975; Journal of Am. Dietetic Ass., op. cit.). It has been noted that the average:

> "is the easiest statistic to develop and probably the most misused. It is a great simplifier, but the oversimplification it breeds is misleading and often a disservice to its users" (Journal of Am. Dietetic Ass., op. cit., p. 10).

Discussions of standards have suggested that the objective is to establish a "margin of safety" (FAO-WHO, 1973). It has been suggested that the margin of safety for recommended food intake should be drawn 2 standard deviations [s.d.] above the mean requirement. Thus the standard would be adequate for at least 97 per cent of the population. Although this does represent a reasonable cut-off point some problems still remain (see below).

a) Using the "safe level" (mean plus 2 s.d.) does not solve this problem completely, although we can make use of statistical probability theory.

b) Even minor variations in daily energy intake, when associated with factors such as sedentary lifestyle, can cause health problems such as weight disorders.

c) Even supposing that the "safe level" is entirely adequate for 97 per cent of a given population, it is probably the remaining 3 per cent of the population who are at the highest health risk (unless we are able to identify and give specific treatment to the individuals of this high risk group.

Secondly, a further complication exists in establishing criteria to set the level of nutritional requirement. The methods used to determine minimum requirements are often treated with scepticism, as are attempts to elevate them to a recommended level of intake (see: Scrinshaw, 1976, pp. 136-142 and 198-203).

The "margin of safety" (mean plus 2 s.d.) seems to be a good methodological tool in the presence of a normal distribution of requirements. However,

> "(..) for a safety margin of 20 per cent of the average to be used requires that the coefficient of variation of the distribution of intakes within the population is not more than 10 per cent if the needs of 97.7 per cent of the population are to be met; if the coefficient of variation is 20 per cent then the needs of only 84 per cent will be met"

(CAS, op. cit., p.43).

Coefficients of variation are not often reported. At any rate, in 1965 the FAO-WHO joint expert group took a value of 15 per cent for the coefficient of variation for protein (FAO-WHO, 1965). Galloway and Morgen, in 1971, suggested a value of 22 per cent for this kind of coefficient (Galloway and Morgen, 1971).

Two important questions can be raised at this point:

(i) to what extent are variations in requirements for different nutrients normally distributed? And

(ii) What is the range of distribution of requirements?

There is reasonable evidence that the distribution of requirements is approximately normal, while there is little evidence of the range of requirements of different nutrients within the population (CAS, op. cit., pp. 42-44).

Thirdly, figures of estimated intakes are often suggested for specific sex-age groups. For nutrition and health programme purposes this information does not always meet the needs of policy implementation. To base the population's nutrient needs on this approach would somehow imply the unrealistic expectation that each age and sex group, or each individual, will be able to choose the most efficient mixture of food for his-her needs. It would seem clear that:

> "(..) the variations in nutrient need for different ages and sexes (..) can have little importance in feeding groups of mixed age and sex. A family, for practical purposes, 'eats out of the same pot'" (Hegsted, 1975, p. 15).

In a normal family, there is the need to plan and obtain an adequate diet for the whole group. The most useful type of dietary standard, therefore, should indicate how this should be done.

Fourthly, nutrient requirements often are expressed by considering each nutrient in isolation. However, since nutrients are obtained from natural food sources, this system does not express the recommended level of intake in the best form to help in the selection of foods. Moreover, considering each nutrient alone makes it difficult to deal with interactions between foods and nutrients (see: Hegsted, 1975, p. 15).

The difficulties and uncertainties identified in this section and in section 8.5.1 have been only briefly faced by the Canadian and Norwegian policies because, as we have seen in Chapter 6 (Section 6.1) and Chapter 7 (Section 7.2.1), they have really provided only general nutrition recommendations to date. Once the emphasis switches to target groups and away from the general population, both countries will have to deal with the type of uncertain knowledge mentioned here. This would be the case for programmes for nutritionally-vulnerable groups such as the elderly, pregnant women, etc.. Although in health promotion the emphasis is on the general population, the problem of striking an effective balance between the provision of nutrition information, and programmes for the general public and for target groups, still has to be adequately solved in terms both of content and emphasis.

8.6 Difficulty in Applying the "Concept of Health" to Health Promotion Policies

When considering health promotion we need to apply a definition of "health" both in general terms and for individuals categorized according to factors such as age, sex, activity, etc., characterizing our population. Because of the variability in forms and functions among individuals, and in the body's capacity for adaptation, a concept of "optimum health" does not seem to be very useful (see: Johnson, 1976). Many authors have pointed out the complexity of defining and using this concept (for an extensive bibliography on this subject see: Ziglio, 1980, Chapter 1., Sections 3 and 4; and Chapters 2 and 3; see also Ziglio, 1985); and it seems therefore that health is a concept of unsuspected depth.

In approaching health from only a biological perspective, the importance of the problem is minimized since only a part of it is being examined. Similarly, by adopting only a physical environment or social environment approach, the problem is again minimized (although probably to a lesser extent) since it is not being viewed in its totality (see: Chapter 1, Section 1.3.2; see also Johnson, op. cit.).

This difficulty in defining and using the concept of health can have serious implications for health promotion strategies. Policies may be formulated too vaguely, or the goal of the policy may be stated too narrowly. In both cases the formulation and implementation of the health

promotion policy can prove to be extremely ambiguous.

It seems to me that there is a need, in Canada and Norway, to re-examine the place of health promotion in their health policies. Both countries (particularly Canada) need to clarify the role attributed to the government and other agencies in promoting health. The relationship between political power, policy decisions and available knowledge for health promotion has not yet been satisfactorily investigated. I have already pointed out (see Section 8.4) that, in Western industrialized countries, the role of government in policy determination is often thwarted by the value of "individual freedom". Interdisciplinary approaches to nutrition and health promotion, providing a link between policy decisions and knowledge, are lacking (see also Section 8.1).

In conclusion, there can be no proper move towards health promotion without a fundamental shift in traditional ways of considering both health and health policy-making (see also: Chapter 10).

The next two chapters argue that within this process, uncertainty and rapidly-changing situations must be viewed as unavoidable background conditions for further health planning developments and innovative policy-making (see: Chapters 9 and 10).

NOTES

[1] The disagreement may not only be restricted to the uncertainty factor; it has been suggested that even if experts, administrators and the public had crystal balls and their disagreement about uncertainties were to disappear, the controversy would still continue (see: Keeney and Raiffa, 1976). If this were to happen, the controversy would focus on values only, instead of on both values and uncertainties (see: Keeney and Raiffa, op. cit.; see also Ziglio, 1982c).
Many authors have pointed out that if uncertainty is unavoidable in the real world we should at least be aware of its "perverse effects" (see: Delbecq et al., 1974; Harrison, 1975; Thompson, 1967; Kepner and Tregoe, 1965; Phillips, 1978). The first of these perverse effects is that an effort to avoid uncertainty may cause "routine", "interim" or "adaptive" actions (instead of "preventive" ones)(see: Chapter 10; Section 10.1). In fact, there appears to be a tendency for uncertainty to encourage an overly conservative support for routine ways of solving problems, with the result that nothing new is achieved (see: Mack, 1971).
The second perverse effect is quite the opposite: sometimes the presence of uncertainty, instead of hampering decisions, may actually improve their implementation. Mack (op. cit., p.6) claims that:

> "Administrative action is not simply a matter of deciding what to do. Decisions often result from lenghty processes that involve all sorts of interpersonal wrangles and Machiavellian tactics".

In this context uncertainty can help to bring about these processes to the point where some measure of agreement is achieved.

> "Given the ambiguities and cross-pulls of political life, given honest differences in values and factual judgements, I wonder how often people would agree on a course of action if everyone knew precisely what they were agreeing on." (Mack, op. cit., p.6)

[2] However, it must be said that the presence of uncertainty is not the only factor that hampers the development of innovative health-related policies.

[3] Of course, the two models are based on different assumptions about the importance of criteria such as economic development and individual and social welfare. Moreover, these two models may give different importance to governmental and non-governmental agencies, and/or to market and non-market forces, in order to maximize such goals.

[4] For an example of "political criteria" see: Wiseman,

1978; 1979; 1980b; Lind and Wiseman, 1978b).

[5] It has even been suggested that most of the existing national food supplies, for example, seem to lead to a deterioration in the health status of the population rather than to its maintenance or improvement (see: Mustard, 1977; 1978-79; Milio, 1977; Draper et al., 1980; Popay et al., 1980; see also Fallows et al., 1982).

[6] Governments in Western developed countries usually intervene in the food market, particularly at the level of agricultural industry. These interventions affect individual and collective welfare both directly and indirectly. Hence, if we support a perspective that governments should pursue specific welfare policies, it is evident that in order to maintain or improve collective welfare its health and nutrition components should be incorporated as decision criteria into the formulation of policies which affect those components.
Here again the conceptualization of health as an instrumental good and its link with individually and collectively determined welfare is pertinent (see: Section 8.1). The conceptualization of health under which we operate is particular crucial in the formulation of policies for health promotion, where personal choice and social responsibility in health are key and inter-related elements. In the development of health promotion policy we cannot overlook the inextricable link between people and their environment. Thus the government committed to health promotion policies must provide a supportive environment, creating opportunity for making choices among goods, services and conditions in the economic, physical, social and cultural environments.

[7] In Lalonde's Report, for example, there is awareness of the fact that:

> "The view that Canadians have the right 'to choose their own poison' is one that is strongly held." (Lalonde, 1974, p.6)

[8] This issue is closely linked also with technical aspects concerning the nature of the health problem, the cost for implementation and follow-up of potential programmes, the availability of epidemiological data, etc., the exploration of which lies outside the scope of this section.

[9] Wheeler (1975, p.72), for example, affirms that in view of other uncertainties, involved in measuring intakes and estimating requirements, it is perhaps better simply to state that an intake close to the requirement is possible, but not certainly, adequate.

CHAPTER 9.: BASIC FEATURES OF HEALTH PLANNING STYLES AND THEIR APPROACH TO UNCERTAINTY

In this chapter I shall demonstrate that when a need for innovation arises (as in the case of the health promotion policies analysed in Chapter 6 and 7), none of the three major approaches to health policy-making cope satisfactorily with uncertainty. The major approaches to health policy-making must then be assessed in terms of their effectiveness in addressing uncertainty as well as in terms of their flexibility in being used in rapidly changing environments, when using them in health promotion policy-making.

With reference to the analysis of the Norwegian NNFP and the Canadian approach to health promotion policy, a key element for future developments in health promotion planning and policy-making is the way in which uncertainty will be conceptualized and addressed.

9.1 A Review of Major Planning Approaches

A considerable number of planning theories have been put forward over the years. A review of the literature on this topic suggests that although there is a reasonable degree of consensus about how planning and policy-making have tended to evolve in practice, there is no agreement about how these activities ought to be pursued (see: Wiseman,1978; Smith and May,1980; Robertson, 1983d; Ziglio, 1983a).

The three main approaches to public sector planning and policy-making are commonly referred to as:

(i) rational-deductive;

(ii) incremental; and

(iii) mixed-scanning approaches.[1]

9.1.1 The Rational-Deductive Approach

In a rational-deductive approach a policy is structured in strategic terms, as involving a series of sequential steps worked out to attain a given objective. This conceptualization of policy-making is directly linked with the origin of planning. In fact, when planning first became a discipline in the early 1900's, planners and architects hoped to shape society in a rational manner using scientific reasoning and technology (see: Bradbury, 1976; Jackson,1981,chp.2). It is not surprising that this has proved an attractive approach in policy-making. The introduction, in government departments, of research units to monitor the effects of social policies, reliance on systems analysis, operational research, PPBS, PERT,

cost-benefit and effectiveness studies, these all reflect the general popularity of the rationalist style of policy-making, although it has met with varying fortunes over the years (see: Robertson and Gandy,1983).

The basic features of a rational-deductive strategy have been illustrated by many authors. In his review of planning strategies, Wiseman (1979,p.103) points out that this approach

> "involves the policy-maker in identifying the goals or objectives that should govern the choice of solutions to the problem, and in undertaking a comprehensive review of all possible alternatives and their consequences. On this basis, a solution is chosen as a master plan for maximizing the objectives chosen".

Similarly, Meyerson and Banfield (1955, pp.314-315) claim that the character of the rational-deductive approach is three-fold:

> "The decision-maker (a) considers all the alternatives (..) open to him (..) within the condition of the situation and the light of the end which he seeks to attain; (b) he identifies and evaluates all of the consequences which would follow from the adoption of each alternative (..); (c) he selects the alternative, the probable consequences of which would be preferable in terms of his most valuable ends".

Lasswell (1951;1956;1970) specifies that in a rational-deductive model a policy passes through a series of stages in which policy-makers (a) recognize a policy problem exists, (b) identify the nature of the problem through investigation, (c) call for the presentation of alternative solutions, (d) rank their priorities, (e) make predictions on the risks and consequences of the various alternatives,

and (f) come to a decision by combining the (qualitative and quantitative) values they have considered, balancing, for instance, the financial cost and the ethical acceptability of possible alternatives.

As the above definitions show, the emphasis of such an approach is on its apparent rationality, the logical sequence of steps and the objective evaluation of the alternatives making full use of available scientific knowledge (see: Jackson, op. cit.,pp.25-26). Planning inspired by a rational-deductive approach is generally long-term. According to Robertson (1983b) this approach seeks to "objectify" the policy-making process and to reduce decisions to matters of fact, rather than of subjective preference or enthusiasm. I myself have pointed out a number of the methodological problems posed by this approach (see: Ziglio, 1980; 1982a; 1983a).

Let it suffice to say, at this point, that the rational-deductive approach can only be smoothly implemented by avoiding value questions and value judgements about priorities which border on ethical and philosophical issues (see: Wiseman, 1979; Berry, 1974). As will be discussed later, the rational-deductive approach has been accused of being politically naive and utopian (see: Braybrooke and Lindblom, 1963). In the public sector, this strategy has only proved successful when dealing with middle-level management problems (see: Berry, op. cit.; Ziglio, 1983a). The rational-deductive approach, when applied on a comprehensive basis, has failed to live up to expectations,

an objection which has been raised particularly amongst the supporters of incrementalism (see: Braybrooke and Lindblom, op. cit.; Lindblom, 1959; 1964; 1965; 1968).

9.1.2 The Incremental Approach

The most quoted author regarding this approach is undoubtedly C.E. Lindblom. In Lindblom's view (1959) the idea was to arrive at policy decisions by "muddling through", that is through incremental change. The aim here is to arrive at an agreement upon policies which are closely based on past trends and experiences. Lindblom summarizes the requirements of the model as follows:

> 1. Rather than attempting a comprehensive survey and evaluation of all the alternatives, the decision-maker focuses only on those policies which differ incrementally from the existing ones.
> 2. Only a relatively small number of policy alternatives are considered.
> 3. For each policy alternative, only a restricted number of important consequences are evaluated.
> 4. The problem confronting the decision-maker is continually redefined. Incrementalism allows for countless ends-means and means-ends adjustments which, in effect, make the problem more manageable.
> 5. Thus, there is no one decision or "right" solution but a "never-ending series of attacks" on the issues at hand through serial analyses and evaluation.
> 6. As such, incremental decision-making is described as remedial.

In this approach the final set of priorities and decisions is the result obtained via a political process, where pressure exerted by different interest groups plays the most important part in affecting decision-making. This style of planning considers the collation and analysis of

information as marginal activities in helping to improve the formulation of policies. It stems from the conviction that an approach based on the "scientific" appraisal of need, or other components of policies, is practically impossible and smacks of idealism. Braybrooke and Lindblom (op. cit.; see also Lindblom, 1963) consider the rational-deductive approach to be non-practical for many reasons, including (i) the limitation of human intellectual capacities and knowledge; (ii) the cost of securing comprehensive information; and (iii) the failure to take into account the planning system within which decisions are made.

Such an approach therefore relies heavily on the value judgements of knowledgeable individuals or groups about policies and on their use of power and political skill to achieve mutual agreements. Lindblom (op. cit.) refers to this concept as that of "disjointed incrementalism". Wiseman (1979) points out that such "muddling through" activity is the result of "give and take" among a large range of interests involved in the decision making process. Wiseman stresses the point that incremental decision-making is seen as remedial, geared more to the alleviation of current social imperfections than to the promotion of future goals. Furthermore it seems to be clear that this approach produces only marginal changes (if any).

The incremental model aims at emphasizing the political ethics of a pluralistic society and a short-term marginal change. In his article Dror (1964) evaluates the "inherent validity" and "potential impact" of incrementalism on actual

policy-making. As far as validity considerations are concerned they are most likely to prevail where there is a high degree of social stability (see: Dror, op. cit.). As for impact, Dror argues that the effect of muddling through is to give ideological reinforcement to the pro-inertia and anti-innovation forces prevalent in all human organizations (see also: Himantsingani, 1973).

9.1.3 The Mixed-Scanning Approach

Advocates of mixed-scanning maintain that it attempts to overcome the shortcomings found in the other two approaches. This model recognizes the criticisms made about the rational-deductive approach. But for this model it is important to realize that most of these shortcomings are found in the classical "pure" version of a rational-deductive model rather than in adaptations of it (see: Berry, 1974, p. 349). On the one hand mixed-scanning agrees on rejecting the pure version of a rational-deductive model because decision-makers face a world in which all possible consequences cannot be foreseen (see: Arrow, 1964, p.585; Wildavsky, 1964, pp. 147-152). According to Etzioni (1964, p.386)

> "A decision-maker, attempting to adhere to the tenets of a rationalistic model, will become frustrated, exaust his resources without coming to a decision, and remain without an effective decision-making model to guide him."

Rationalistic models are thus rejected as being at once unrealistic and undesirable. On the other hand mixed-scanning also keeps its distance from the incremental

approach.

Those in favour of mixed-scanning argue that an incrementalist strategy does not apply fundamental decisions.

> "Although fundamental decisions are frequently prepared by incremental ones in order that the final decision will initiate a less abrupt change, these decisions may still be considered relatively fundamental. The incremental steps which follow cannot be understood without them, and the proceeding steps are useless unless they lead to a fundamental decision." (Etzioni, op. cit.,p.387)

Indeed, while an accumulation of small steps could lead to a significant change, unfortunately there is no pointer, in the incremental approach, for such an accumulation. The steps may be circular, leading back to where they started, or dispersed, branching into many directions at the same time but leading nowhere (see: Etzioni, op. cit.). For Boulding (1964, p.931), under the incremental approach we stagger through history "like a drunk putting one disjointed incremental foot after another."

According to Etzioni (op. cit. pp.389-390) a key point in a mixed-scanning strategy is therefore the ability to distinguish between "fundamental" and "incremental" decisions.

> "Fundamental decisions are made by exploring the main alternatives the actor sees in view of his conception of his goals, but, unlike what rationalism would indicate, details and specifications are omitted so that an overview is feasible (..). Incremental decisions are made but within the context set by fundamental decisions and fundamental reviews."

In Etzioni's view a re-adaptation of incremental decisions may be used to work out fundamental decisions. They may also be used to identify and prepare for making a fundamental decision, when they are part of a mixed-scanning project.

Etzioni suggests, therefore, that a broad scan of the field of interests be undertaken to identify which decisions can continue to be taken incrementally and which ought to be taken as rationally as possible. He contends that by varying the detail of the scanning activity, such an approach would be flexible enough to deal with a wide range of contexts, and environments of varying stability (see: Etzioni, 1968).

9.2 A Comparative Analysis of Policy-Making Approaches

Having briefly reviewed their basic features, I shall now analyse these major policy-making approaches in the light of the following six criteria:

(1) The underlying nature of the policy-making process;
(2) Strategies within the policy-making process;
(3) Role of research and evaluation;
(4) Type of the organization required;
(5) Type of rationality; and
(6) Conceptualization of uncertainty;

In my opinion, existing analyses of planning and policy-making approaches overlook criteria (5) and (6) in particular. It is extremely important to include these criteria when planning activities have to adapt to rapidly changing and uncertain conditions (which, as we have seen in the previous chapters, characterize the area of health promotion).

In this Section I shall concentrate on the above-written first four criteria, while in Section 9.3 I shall focus on the types of rationality and the conceptualization of uncertainty within the main policy-making models.

9.2.1 The Underlying Nature of the Policy-Making Process

From what has been said above, it can be seen that rational-deductive models contain the characteristics of positivism. Braybrooke and Lindblom (1963, p.10) argue that the rational-deductive model:

> "(..) represents an ideal of science transferred to the field of values." (See also: Lompe, 1968; Robertson, 1983b).

It is plain that the rational-deductive approach is more prescriptive than descriptive. In reality, as Aucoin (1971) has pointed out, rationalistic approaches to decision-making may be often overrun by political leaderships, pressure groups, and so forth. Rationalist approaches have been described as politically naive and utopian because of the way in which they conceptualize the nature of policy-making. Three criticisms may be made. First, the rational-deductive model tends to assume that policy-makers are a homogeneous group. This is misleading because they represent different interest groups and may therefore pursue different objectives. If the approach is purely descriptive, it will obviously be guilty of being naive and misrepresents reality. If, on the other hand, it is prescriptive, it lacks dialectic and might even lead to totalitarism. Second, a "policy" is viewed as an essentially static product (see: Robertson, 1983b). This makes rational-deductive models too rigid: they draw sharp distinctions between ends and means, values and decisions, and views and values (see: Hyderbrand, 1964,p.164; see also Smith and May, 1980). Third, the very notion of "rationality", upon which rational-deductive approaches claim to be based, is a problematic concept (as will be demonstrated later on in this chapter). There is by no means a consensus on the fact that rationality represents a universally agreed-upon concept (see: Wilson, 1970).

Incrementalist approaches see a "policy" as the outcome of a process of give-and-take, or mutual adjustments, amongst the various interest groups involved in

decision-making. If the approach is taken as descriptive, then very often it may be a good approximation of what happens in reality. However, when it is used normatively, then marginal changes must be the end-product of decision-making. In the latter case, the introduction of incrementalism would still be justified even if the results of present policies were generally satisfactory, if the (known) nature of the problem were relatively stable and if means for dealing with the problem were continuously available. Otherwise the incremental approach lays itself open to the accusation of being conservative in that it copes with only remedial or short-term change and may reinforce inertia (see: Dror, 1964; Etzioni, 1964).
Thus, the manner in which incrementalism interprets the "nature" of a policy may actually prove a barrier to innovation. According to Dror (op. cit., p.157)

> "The rational-comprehensive model has at least the advantage of stimulating administrators to get a little outside their regular routine, while Lindblom's model justifies a policy of 'no effort' (..)."

In a mixed-scanning approach the nature of the policy is determined by its fundamental goals. But here a policy is not simply seen as a rigid goal-oriented mechanism. Political considerations and different interest groups are also included as variables in a mixed-scanning process. The strength of the approach lies in its attempt to incorporate both rational-deductive and incrementalist principles. Etzioni (1967, p.385) claims that:

> "(..) each of the two elements in mixed-scanning helps to reduce the effects of the particular shortcomings of the other; incrementalism reduces the unrealistic aspects of rationalism by limiting the details

> required in fundamental decisions, and contextualizing rationalism helps to overcome the conservative slant of incrementalism by exploring longer-run alternatives."

However, many authors claim that the strength of mixed-scanning is also its weakness. In fact, it is by no means clear that the unrealistic and conservative views of the nature of a policy would actually be avoided. Mixed-scanning purports to be both descriptive and prescriptive. If it is genuinely descriptive of a real situation this could be verified by empirical research. As we know this is not often the case. In the absence of empirical data its normative value also remains in doubt. In practice, the approach may turn out to be just as utopian as rational-deductive models and just as lethargic as muddling through (see: Smith and May, 1980,p.153).
Although some proposals have been made (see, for instance, the work of the Scottish Institute of Operational Research (Wiseman, 1978; 1979; 1980a; 1980b; Lind and Wiseman, 1978b)), further experimental schemes are needed (see: Ziglio, 1980, chapter 1; Robertson, 1983b). At any rate, on the health promotion policy front, I feel that it would be wiser to use a prescriptive mixed-scanning model rather than a rational-deductive or incremental one (see: Section 9.3.1).

9.2.2 Strategies Within the Policy-Making Process

The way in which planning identifies the "nature" of a policy is closely linked with the type of strategy it sets

in motion within the policy-making process. As we have seen in a rational-deductive model, the logical sequence of actions constitutes common planning practice. When the planning process is successful, the outcome of it is a (long-term) "plan." Although politicians and policy-makers are not often so keen to commit themselves to a particular plan, in many cases it could be, using rationalistic strategies, a "scientific" way of presenting the formulation of new programmes or dismantling existing ones. [2]

Unfortunately there may be several drawbacks to this strategy. In fact, a "plan" can quickly become obsolete due to changing circumstances. This problem is further complicated by methodological considerations associated with each phase of a rational-deductive planning process.
There have been many attempts to modify the classical version of the rational-deductive approach to take account of changing circumstances. In such instances planning is generally seen as a continuous process of monitoring and re-evaluating the course of action chosen (see, for example, Mcloughlin, 1969). However, it is not always easy to modify this approach (in terms of costs and in terms of ability to monitor and evaluate the many variables related to a given policy) and reframe planning procedures. Complex management problems would inevitably arise.

The strategies chosen by incremental models proceed in a somewhat disjointed fashion, because of the limitations referred to in Section 9.2.1, so that policies emerge over time, moving forward by slow piecemeal developments in the

short term, working within the limited options already referred to (see: Robertson, 1983b). Incremental strategies have been accused of favouring the interests of the most powerful and systematically neglecting the interests of politically unorganized groups (see: Etzioni, 1967; Smith and May, 1980; Dror, 1964). Other authors have accused muddling through strategies of being ambiguous (Hill, 1978).[3] As Etzioni (1968) puts it:

> "An incrementalist actor responds and adjusts; he does not even try to transcend and transform."

Generally speaking, the strategies chosen by a mixed-scanning approach centre on the use of a list of "criteria" enabling comparisons to be made (see: Lind and Wiseman, 1978b). According to Lind and Wiseman (op. cit.) these comparisons can cover the measurement of ill-health, the quality and quantity of services, the effectiveness and efficiency of interventions, etc.. Political judgements would generally be involved in weighing up the outcome of such comparisons as a vital step in deciding on priorities and in shaping policies.

Criteria-based approaches to the setting of health priorities and planning are in general still only at the level of conceptual exploration. It is useful to bear the following distinction in mind when discussing them: (a) some studies use broad criteria; (b) others use highly detailed and structured criteria.

The work of Bryant (1970) belongs to the first group of studies.[4] The approach chosen by Blum (1974) belongs on the other hand to the second group of studies. He suggests

54 detailed criteria grouped under four broad headings: (i) technological aspects; (ii) health aspects; (iii) general social concerns; and (iv) planning concerns.[5] Wiseman (1978) proposes a similar approach. His aim is to develop an approach to health planning where issues can be filtered so that those requiring an analytical (rather than administrative) approach can be selected for detailed planning attention. In order to concretise this "process of selection" he describes a set of 12 criteria which can be grouped under 4 broad headings: (a) the size of the issue; (b) the nature of the issue; (c) future implications of the issue; (d) political setting of the issue (for a review of these criteria see: Ziglio, 1980, chp 1;).[6]

Inspired by the idea of a criteria-based approach Wiseman developed, in 1980, a new strategy (see: Wiseman, 1980a). It is also influenced by a mixed-scanning model of policy making, and is concerned with priorities for the allocation of resources amongst different diseases or dependency groups within the population. Wiseman's two studies do not have recourse to sophisticated mathematical weights or rankings. The work of Schwarz (1975), on the other hand, is an example of the use of very structured criteria. With Schwarz the methodological problems of measurement increase and the planning process risks becoming as rigid as in rational-deductive models (for a critique of Schwarz's work and other approaches based on very structured criteria see: Lind and Wiseman, 1978b, Chapter 5; Ziglio, 1980, Chapter 1, Sections 4 and 5).

Various considerations must be taken into account if a mixed-scanning strategy, adopting criteria-based approaches, is to be implemented. Thus, there is a limit to the number of criteria that planners and decision-makers can use; the basic set of criteria may have to be adapted according to local requirements or special circumstances; and reliable information on these criteria must be readily available. When political criteria affect scanning activities there are also uncertainties as to the potential impact of different interests on the approach proposed. In addition, because of the lack of accurate information, criteria-based models could rely too heavily on subjective views of the various participants, preventing the models from helping to formulate an appropriate statement of priorities.

9.2.3 Role of Research and Evaluation

As research and evaluation play a marginal role in incrementalist approaches, I shall concentrate on the rational-deductive and mixed-scanning models.

Research and evaluation are two vital ingredients of a rational-deductive model of planning and policy-making. Two issues are relevant here. First, there are the methodological problems facing research and evaluation within a rational-deductive approach. Second, it is necessary to consider the utilization of research findings and evaluation research.

As far as the first issue is concerned the methodological

problems associated with the use of research and evaluation in setting health priorities, or reshaping existing health policy, have been analysed by many authors (see for example: Chen and Bryant, 1975; Majone, 1975, Humbleton, 1977).[7] In the health field, endeavours to maintain "objectivity" often come into conflict with the nature of health itself (health being multi-dimensional and open to a wide range of interpretations). Most research carried out to provide guidance on the setting of health priorities has adopted over-simplified assumptions about which dimension of health to operationalize, thus leaving the research outcome open to criticism (see: Ziglio, 1980; 1985; see also: Berg, 1973; Kaplan et al., 1976).

As regards the utilization of evaluation and research findings in policy-making, Robertson and Gandy (1983, p.242) point out that despite the considerable amount of research commissioned by policy-makers and government departments, the impact of research on both policy-decisions and practice has at best been disappointing. Other authors reviewing the literature on research utilization reach the conclusion that research and evaluation have had only a limited impact on policy-making (see: Wildavsky, 1972; Knorr, 1977).

A mixed-scanning strategy may avoid many of the frustrations experienced by rational-deductive approaches in their search for "objectivity". However, it is far from easy to distinguish the point where research and evaluation become unnecessary as opposed to necessary. A real problem in applying a mixed-scanning approach is that of determining

the degree of scanning required. This dilemma is all the more serious in the light of the various sources of uncertainty surrounding the area of health promotion (as discussed in Chapters 2 and 8). I do not think that the three guidelines recommended by Etzioni (1967), namely (i) the cost of not using additional scanning; (ii) the cost of additional scanning; and (iii) the time required for further scanning, can entirely help to solve the problem. In many cases, within health promotion policy areas, it would even be difficult to provide such information, and where it is available there are no recommendations as to who should be responsible for the final decision.

Summing up, research and evaluation may in the first place not have the direct impact on policy-making that the rational-deductive approach would suggest. Booth (1979) argues that research rarely produces definite conclusions which can be acted upon by the policy-maker, who almost always has to take account of a wider range of factors than research can usually encompass (see also: Robertson and Gandy, op. cit.,p.243).

Second, the implementation of research findings would presuppose a direct, non-conflicting relationship with power. The relationship between knowledge and power, researchers and policy-makers, is far more complex than the approaches examined would imply. The works of Lompe (1968), Habermas (1971), Luhman (1971), Pizzorno (1977), Crozier and Griedberg (1978), and Scharpf (1978), discuss the complexity of the various issues related to science, power, and the

organizational context of decision. In policy-making, the marriage between researchers and policy-makers is not an easy one.

Third, the rational-deductive approach over-rates the potential of research in shaping policy, whilst the incremental model underestimates it. The mixed-scanning approach has not yet been able to overcome the vagueness within which research and evaluation have to operate.

9.2.4 Type of Organization Required

This is a key issue for the formulation and implementation of any social policy, but I shall limit myself to a few brief comments.

First, the various issues considered in the final part of the previous section are closely associated with a given organizational structure. This implies that questions about the relationship between political and technical aspects of a policy, power and knowledge, should not be considered in absolute but in relative (contextuating) terms.

Second, the ethics of decision-making of pluralist societies require that efforts should be made to include public acountability as a component of the general organization of policy-making. The works of Ham (1977), Klein and Lewis (1976) and others have thrown some light on this topic. The literature on the role of public participation in the re-organization of the Italian national

health system can make a valuable contribution to the theoretical debate on the various issues related to this topic (see: Maccacaro, 1971; Giraldo et. al., 1981; see also Bobbio, 1981; Ingrao, 1981).

However, very little work has yet been done on public acountability in the planning of health promotion policy. All in all, the experiences of Norway and Canada have contributed only marginally (if at all) to the exploration of possible ways to incorporating public participation in shaping health promotion activities.[8]

Thirdly, it seems clear that the three approaches to planning and policy-making discussed here require different types of organizational structure. In their famous study Burns and Stalker (1961) describe a continuum between two "ideal types" of organizations: the organic and the mechanistic. They show that organic structures are more appropriate for organizations operating in a context of change and uncertainty. Robertson (1983b) affirms that an organic organizational structure provides the best framework for permitting mixed-scanning to operate effectively. A mechanistic type of organizational structure would be more appropriate for a rational-deductive model.

In conclusion, we can say that although the incremental model claims to meet the requirements of pluralistic societies, it may pose a threat to innovation, thus limiting the range of planning action. Generally speaking, rational-deductive approaches would be better suited to totalitarian societies, where power is centralized and less

dependent on consensus than in pluralistic societies.[9]

The claim that a mixed-scanning strategy is neither rationalistic nor incremental has yet to be proven in practice.[10]

9.3 Rationality and Uncertainty in Planning Theories: Considerations for Health Promotion Policies

The aim, in describing the three major styles of planning, was not to suggest that one particular strategy is the most desirable or "the one best way".

Firstly, it is worthwhile to say that these models assume different philosophical stances on crucial planning issues.

Secondly, according to the nature of the problems, the three strategies make different contributions to their solutions.

Thirdly, these strategies fulfil different functions within organizations dealing with planning in the health sector. The functions described by the OSTI report (1972) may be useful for summarizing some of the major features (see Fig. 9.A).

The choice of a strategy depends on the nature of the health issue, and on the organizational and environmental context. To this end, Berry (1974) points out that in order to be effective the choice must be deliberately and consciously linked to the planning environment. For Berry (op. cit.) key variables in the planning environment include: (i) the decision-making mechanisms; (ii) the degree of autonomy of the planning system; (iii) the kinds of interaction between planners, consumers and providers of services; and (iv) the available and acceptable mechanisms for administrative control of the action that follows planning.

Fourthly, other factors, affecting the choice of health planning strategy, are peculiar to the problem under

investigation. In the case of health promotion policies, such as the Canadian approach or the NNFP, these factors might include:

(a) the nature of the goals and the objectives pursued;

(b) the technological feasibility of having an impact on the problem;

(c) the ethical acceptability of the means chosen to combat the problem;

(d) the availability of information;

(e) the techniques of calculation that are applicable;

(f) the ethical and economic feasibility of available alternatives; and

(g) the urgency of intervention.

A fifth point to consider, in choosing a health planning strategy, is to look at its rate of success in similar health planning situations in the past. I have attempted to summarize some features and requirements in Fig. 9.B. As we can see, there is no one single most desirable strategy which can be applied everywhere and in any situation. A given approach may be advantageous or disadvantageous according to: the nature of the health planning problem; the situation where the problem occurs; the time-schedule available; the kind and cost of the information; the cost of intervention; etc.. However, the introduction of health promotion policies, such as those attempted by Canada and Norway, implies, to a lesser or greater extent, dealing with innovation and uncertainty. Hence, incremental and rational-deductive approaches are unlikely to be successful as prescriptive models in policy-making in the area of health promotion.

In a situation where there has been a conscious shift in setting health priorities, the rational grounds for the shift and the degree of uncertainty about its consequences, come to play a fundamental role in shaping (new) sets of health policy. This is the case with the Canadian and Norwegian approaches to health promotion analysed in the previous chapters. By analysing the elements of rationality and uncertainty it is hoped to make a contribution to the debate on health promotion planning and policy-making.

FIG. 9A - Impact of Planning Styles on the Time Schedule and Nature of Selected Activities -

Source: Adapted from the OSTI Report (1972)

PLANNING STYLE	TIME SCHEDULE AND NATURE OF ACTIVITIES			
	Plan Development	Review & Comment	Community Relations	Fund Raising
RATIONAL-DEDUCTIVE	1. Comprehensive analysis including factors other than health services that affect health. 2. Master plan 3. Maximum time	1. Project judged on extent fit master plan 2. Emphasis on maximizing means-end achievement	1. Seek to achieve involvement of technical experts and stabilize values 2. Moderate time	1. Difficult 2. Maximum time
INCREMENTAL	1. Marginal analysis 2. Specification of ways to move away from problems 3. Minimum time	1. Project compared to previous attacks on problem 2. Consensus used as criterion of good policy (max. time)	1. Seek to involve multiple interest of community and emphasis on consensus building 2. Maximum time	1. Easy 2. Minimal time
MIXED-SCANNING	1. Extensive analysis and fairly comprehensive consideration of alternatives 2. General framework with goals and objectives specified - some detail 3. Moderate time	1. Project judged by contribution to fundamental goal 2. Project may suggests additional analysis 3. Moderate time	1. Seek to keep public informed on fundamental decisions and changes in direction 2. Maximum time	1. Relatively easy 2. Moderate time

FIG. 98 – Basic Features and Requirements of Health Planning Styles –

PLANNING STYLE	AIM	ENVIRONMENT	MAIN REQUIREMENTS	RELATION BETWEEN DECISIONS & VALUES	SUCCESSFUL USE	FURTHER ADAPTATION IN HEALTH PLANNING	POSSIBLE DRAWBACKS
RATIONAL-DEDUCTIVE	Seeks to consider all possible alternatives and suggests the 'best one'. The solution is viewed as a master plan for maximizing the objectives chosen	Stable with wide consensus on values held. It is characterized by a clear identification of the goals or objectives.	– Adequate information; – availability of mathematical models for problem-solving.	Usually it offers little help here, assuming that values are generally constant and developed before the model is applied.	Policy problems that are physical in nature (e.g. hospital locations); Middle-level management, such as rationalizing waiting-lists.	Contribution to more systematic approach to health issues. Techniques that will allow for the systematic tracking of value assumptions by means of problem definition, data analysis and policy decisions must be explored.	The model is rather naive and idealistic from a political point of view. The human being's problem-solving ability is limited.
INCREMENTAL	Suggests considering only those policies which differ incrementally from the existing ones. The aim is to arrive at mutual adjustments among the wide range of interests involved in the decision-making process.	High degree of social stability. Policy problems with factors that are not changing rapidly.	– Acceptance of the necessity for compromise.	It assumes that values are closely linked to facts and that a good decision is one in which there is consensus.	It can be a helpful tool for the clarification of issues and values associated with alternatives. In some situations it may be a useful tool to overcome some of the unrealistic features of the rational-deductive model.	It can be an exploratory tool associated with technical possibilities or value choice. Useful in an environment characterized by uncertainty, but with no need for innovation.	The model can degenerate into a remedial activity geared more to the alleviation of present social imperfections than to the promotion of future goals
MIXED-SCANNING	Seeks to identify which decision can continue to be taken incrementally and which ought to be taken rationally.	It can be applied even to rapidly-changing environments.	– It needs to distinguish 'fundamental' from 'incremental' decisions; – Adequate information on the issues selected.	It is possible to specify values and goals and rank them at least on ordinal scale.	It has been used only to a limited degree so far, but its implications for future health planning deserve consideration.	It can provide a systematic yet politically realistic tool for health planning problems. It can represent a sort of middle-course activity for the scanning of a number of possibilities as well as for the selection of alternative activities. It can be useful in rapidly-changing environments and uncertain conditions calling for innovation.	Difficulties in determining the degree of scanning that should be undertaken in data analysis. Uncertainty concerning how the different interests can affect the model.

9.3.1 Rationality and the Planning of Health Promotion

In the complex field of health promotion planning activities there is a need for both the development and clarification of the criterion of rationality. In fact, in all the planning styles already examined, there is the assumption of "rationality". Everyone wishes to plan rationally and nobody wishes to be labelled as non-rational. However, as my examination of the aims of different planning styles shows, it is difficult to translate the concept of rationality into meaningful terms. Each strategy pretends to be "rational" (rather than being non-rational), but all too often these assumptions are hidden, unclear or ambiguous.

I am convinced that we must redouble our efforts to get a better understanding of the use of "rationality" in health promotion planning activities. Berry (1974, p.14) notes that:

> "Too often the concept of rationality has been clothed in a mystique and obscure language that characterizes many of the social sciences. Rationality has not been operationalized to the extent of being useful as a tool either for the health planner, or for the investigator who desired to systematically study the application of rationality."

To a greater or lesser extent, any planning activity involves making decisions about problems, values, desired outcomes, activities and feasible actions. The expectation is that they will produce reasoned measures for solving problems and achieving desired outcomes. Decision-making and planning are therefore expected to be consciously

rational (Arnold et al., 1971, p.250). There are, however, different kinds of rationality, depending for example on the type of problem and situation involved.

In order to decrease the mystique surrounding rationality and to define this concept Berry (1973) puts forward four attributes to health planning rationality. These are:

(1) Health planning rationality is "bounded" due to the magnitude of problems and man's limited ability to solve them.

(2) Health planning rationality has multiple dimensions.

(3) These multiple dimensions of health planning rationality interact as complements and substitutes.

(4) Rationality may be construed of as the exposure of problems to cognitive processes.

Two important considerations demonstrate the bounded nature of rationality in the health sector. First, for many years the concept of rationality, even in the health field, has been too heavily based on traditional economics. Under such circumstances health planning may run the risk of being only a process of economising. Reducing the concept of rationality to the process of economising seems to be over-restrictive for health planning in general, and health promotion activities in particular.

Second, the "bounded" nature of health planning rationality is evident, for instance, in the epidemiological problems associated with the unresolved questions of cause and effect for many health problems concerning health promotion (e.g. lifestyle-related diseases).

To summarize, the health planner's limited capacity for problem-solving means that rational health planning is

"bounded", the bounds of rationality are defined with respect to a simplified model of the real world.

These remarks on the bounded nature of rationality in health planning activities are highly relevant to the stumblimg blocks facing health promotion policies in Canada and in Norway. The bounded nature of rationality is directly associated with uncertainty surrounding the development of specific programmes to contrast life-style related diseases. In this instance, as we have seen in Chapter 2, knowledge is not entirely satisfactory, and there are even conflicting explanatory theories. These policies therefore rely on much less specific indicators for interventions than those available for immunization programmes with known aetiology, for example.

The second element of rationality in the planning of health promotion is related to its multi-dimensional character. Diesing (1962) suggests that there are five kinds of rationality that are functionally necessary to society. Three of them are worth mentioning here [11]:

(1) Logical Rationality: concerned with the logic of cause and effect. Much of the problem-solving depends upon the knowledge we have about the problem. Most disease control programmes, for instance, depend on this type of rationality.

(2) Economic Rationality: once we have knowledge of the effectiveness of various programme alternatives (logical rationality) we can choose the best way of allocating resources so as to achieve maximum utility. "Under the premises of economically rational decision-making, (..) one might order disease problems in terms of costs to the society or costs to the individual, or some other order of preference, and then determine the best mix of resources for achieving the greater gain" (Arnold, op. cit., p.251). Problems of priority and resource allocation are, by and large, problems of economic rationality.

(3) Political Rationality: this focuses on the use of authority, power and also alternative decision-making structures. The basic question in this kind of rationality is: "Who shall make what decisions for whom and under what conditions?" (Arnold, op. cit.,p251).[12]

In conclusion we can say that it is difficult in practice for the planning of health promotion policies accurately to assess the dimensions of rationality involved. It seems to me that for improving the basis of planning in the health promotion area, further developments, in planning theories and policy-making practice, should provide insights to questions such as:

-- Are the multiple dimensions of rationality present in all health promotion planning issues?

-- How are they related?

-- Are these rationalities of equal weight in a given health promotion issue?

-- If not, would it be possible (and desirable) to devise some kind of weighting system in order to rank the relative importance of each type of rationality?

A fundamental question emerges from what has been said so far: does the complexity of the health policy-making context allow the identification and use of rationalities "a priori", or can we only identify them "retrospectively"? Those favouring a rational-deductive model of policy-making would allow a priori identification, but supporters of an incremental approach would be very sceptical and say that "a priori" identification is impossible. Nevertheless, by using an incremental approach marginal changes would probably be given implicit priority. In the mixed-scanning strategy, it would be acceptable to rank the relative importance of these rationalities, and this would definitely

form the basis for identifying a workable strategy. Conversely, for the rational-deductive model it would be very difficult (although not impossible) to overcome the methodological problems connected with finding satisfactory ways of measuring these rationalities, and coping with their interactions.

9.3.2 The Concept of Uncertainty in the Planning of Health Promotion

Uncertainty is a common feature in many social policies. It mainly occurs when: (i) past and current experience can tell us very little; (ii) risks and incongruities are beyond our control; and (iii) it is difficult to predict future trends and courses of action.

If one accepts Berry's assumptions about the nature of rationality in health planning (namely: it is bounded; it has multiple dimensions; and the multiple dimensions interact as complements and substitutes), it follows that distinguishing rationality from irrationality becomes a difficult, if not impossible, task. The same activity may be judged irrational from one dimension of rationality, but rational from another. Berry (1973, p.19) affirms that:

> "Incongruity (..) seems to be the opposite of the means-ends congruence of rationality; but even so, the possibility of incongruities being produced by a cognitive process must be acknowledged - i.e. not all the data may be available, the data may be incorrect, or the participants in the policy-making process may have limited capabilities for consistently rational behaviour."[13]

The complexity of the conceptualization of uncertainty in health planning may become even greater if "certainty" is confused with "knowledge" or "information". Two problems in dealing with uncertainty deserve mention here. The first is concerned with how to achieve certainty in dealing with a particular problem; while the second one refers to the ambiguity relating to uncertainty and information.[14]
As for the first problem we can affirm that, by and large, uncertainty increases with the complexity of a system. If we think of the health field in terms of a system (or sub-system of the social field) we must conclude that uncertainty is unavoidable. This is especially true in the health promotion area where action is not confined only to the health sector; but this should not deny meaningful planning activities (as attempted, in different ways, by the NNFP or the Canadian approach to health promotion policy). Thus, in the planning of health promotion we should approach uncertainty along the lines suggested by the Lalonde Report:

> "(..) many of Canada's health problems are sufficiently pressing that action has to be taken on them <u>even if all the scientific evidence is not in</u>. The Chinese have an expression 'Moi Sui' which means 'to touch, to feel, to grope around'. It reflects a deliberate approach to innovative and creative action even when scientific certainty and predictability are in question." (Lalonde, 1974, pp.57-58) (Emphasis added)

From what has been said in Sections 9.1 and 9.3, rational-deductive approaches often fail to tackle uncertainty because of the lack of reliable and valid information; while in an incremental approach, this uncertainty would not be countered by radical innovation. In a situation where rational-deductive and incrementalist

approaches both fail to cope with uncertainty, it would be wise to redouble efforts in exploring mixed-scanning approaches.

Turning now to the latter problem (i.e. the possible ambiguity relating to uncertainty and information), the works of Cherry (1961); Mckay (1969); Mandelbrot (1971); Buckley (1976); Niero (1983); and many others throw light on this complex area. Edwards (1983) points out the many undesirable consequences of simplistic use of information in health policy responses. It is important to note that it may be wrong to assume that uncertainty can be reduced through merely an increase in information. The amount of information available does not necessarily improve our chance of establishing the cause-effect relationship which is crucial to reducing uncertainty. Moreover, we could overload our information system, diminishing efficiency.

To sum up, policy decisions, in a health promotion strategy, are related to at least three different sources of uncertainty (see also: Friend and Jessop, 1969; Wiseman, 1979).

Uncertainty about the operating environment: this includes not only the physical environment, but the social, political and economic environment.

Uncertainty about related areas: this arises because there are other interconnected topics or agencies affecting decisions which can have an influence on the subject under consideration. This is usually reflected in the need for more co-ordination or for a broader view to be taken (Wiseman, op. cit., p.111; see also Chapter 8, Section 8.1).

Uncertainty in values and politics: this is self-explanatory and calls for clearer objectives or increased policy guidance (Wiseman, op. cit., p.111; see also Chapter 8, Section 8.4).

Current decision-aiding technologies and policy-making models are not fully attuned to situations characterized by the kinds of uncertainty described above.[15] In the area of health promotion, health planners and policy-makers find themselves confronted with variables which may, or may not, be under their control. They face not single problems but systems of problems (see: Jackson, 1981), referred to variously as "messes" (see: Ackoff, 1974); "dilemmas" (see: Schon, 1980) or "puzzles" (see: Emery, 1977).

My review of the major health planning styles suggests that there is no one ideal approach to health policy-making under highly uncertain conditions. Mixed-scanning might provide a more workable model for dealing with both uncertainty and innovation, but further experiments are needed. This could stimulate planners and decision-makers to devise planning processes that adapt to rapidly changing and uncertain conditions.

Searching for ways to adapt to uncertainty and rapidly-changing situations has led to new theories and styles of planning. These may also be relevant to planners and policy-makers working specifically in the area of health promotion. These emerging theories and concepts have generally been recommended by scientists working in other fields, including management sciences, operational and regional planning, behavioural sciences, and futures research. Approaches to health promotion such as those initiated by Norway and Canada (analysed in Part III) cannot ignore these emerging (and still embryonic) theories and

concepts (see Chapter 10). Future developments in health promotion theory and planning will depend, amongst other things, on the way in which uncertainty is conceptualized and addressed.

NOTES

[1] Berry (1974) considers also the "radical model" as a fourth approach to health planning and policy-making. However, I do not think we can discuss a "radical" way of planning in the same way as I have done for the other strategies. The term "radicalism" is a relative one. I think that its use in the public sector is more suitable when describing a particular ideology or value beneath decisions and priorities, rather than suggesting methods for arriving at those decisions.
Thus, to define radicalism as a policy-making strategy could be ambiguous or misleading because it stresses only the ends, or final outcome of a policy, without giving the necessary methodological guidance as to the path through which decisions are and ought to be made. In fact, radical strategies too often shift towards macro-goals and avoiding facing problems related to the implementation and impact of policies (Ziglio, 1982a).

Dror (1964) proposes a "normative optimum model for policy-making" as an attempt to combine realism and idealism. "The models should be near enough to reality to serve as feasible guides for actions; at the same time, the models should aspire to a higher quality of public policy-making and serve as a means to encourage the improvement of reality" (Dror, op. cit., p.157).
The reasons why I have not considered this model in my review can be explained by quoting Lindblom (1964). "(..) Dror asks that a model : (a) 'fits reality' while (b) 'being directed toward its improvement' and (c) 'which can in fact be applied to policy-making' while (d) 'motivating a maximum effort to arrive at better policies'. I doubt whether any reader, on reflecting on these four criteria for a model, will accept them in combination" (Lindblom, op. cit., p.158).
Thus, Dror's model would provide very general assistance in policy-making in practice and cannot be analysed in the same way as I have done for the rational-deductive, incremental and mixed-scanning approaches.

In addition, I should like to refer to the works of Jackson (1981); Faludi (1982); Hesley et al. (1982); and Kemp (1982) which throw light on the recent debate on models of planning and policy-making.

[2] I have explored this issue elsewhere (Ziglio, 1983b), and the literature on evaluation research may also shed some light on the issue (see for example: Knutson, 1961; Suchman, 1970; Carter and Wharf, 1973).

[3] Hill (1978) argues that in an incremental approach, ambiguity is a deliberate tactic used by policy formulators to avoid explicit and embarrassing commitment to values, that might be unpopular or contrary to the dominant value system (see also: Edwards, 1981, p.296).

[4] For Bryant (1970) the criteria which can provide a general framework for assessing problems in the health field are: (i) prevalence; (ii) seriousness; (iii) community concern; (iv) vulnerability to management (including consideration of cost and effectiveness). It has been argued that these criteria are insufficiently specified and many problems remain in their translation into practical measures. The following questions require clarification: (a) How should seriousness and community concern be assessed and measured? (b) Assuming that more than one view of seriousness would present itself, how should conflicts between views be resolved? (See: Lind and Wiseman, 1978b, p.89).

[5] Blum (1974) suggests that a group of individuals should weight the criteria proposed and rate different problems on a scale ranging from -10 to +10. Blum stresses the way in which we should see his method in order to avoid possible distortion. "It remains to be stressed that the use of criteria, weights and rating, cannot substitute for the judgement, even though their use helps inform those who do judging. Rather than providing a simplistic guide to setting priorities, the main utility of creating and using a rating scheme is to guide planning body members to a consideration of what may be, for them, a novel value system; such considerations would then lead to a full view of the complexities involved. Members are also led to the necessity for a reconciliation among themselves of their differing choices of criteria, weightings, and ratings. At the same time, this exercise provides the community with an educational experience in how decisions might better be made".

[6] What is important here is the inclusion of "political criteria". Political criteria cover matters such as the "urgency" of an issue and its "strategic relevance". In his work Wiseman (1978) sets out a systematic procedure which can be used to guide and help individuals involved in the decision-making process. This procedure provides a "decision-tree" approach as a framework within which discussion about the criteria and political judgement can be facilitated.

[7] Methodological problems of evaluation research are mainly associated with the complex relation between inputs and outputs in the health system, and their measurements (see: Furno', 1979; Ziglio, 1980, Chap. 1 and 3; Ziglio and Furno', 1981). This in turn is connected with the need for a methodology capable of monitoring and evaluating the outcome of specific programmes in the health sector. To be able to satisfy this need would also imply a possibility for a shift in the basis of health planning, with an emphasis on measuring and evaluating the outputs of services rather than on the amount of services delivered (see: Ziglio, 1980, Chap.3; 1982b). Subjective and objective approaches to output measures both share with health status indicators the same methodological problems in meeting the criteria of

validity, sensitivity and reliability referred to above. Hence, their use in health planning may not be as straighforward as appears at first sight (see: Wright, 1974; 1978; 1979; Furno', op. cit.; Edwards, 1983; Ziglio, 1985).

In this instance, my review, in 1980 (see also Ziglio, 1985), of the major attempts to build "Health Status Indices", for example, indicates that none of the studies examined satisfies scientific criteria of measurement such as "validity", "sensitivity" and "reliability". The attempts analysed were: (a) The proposed W.H.O. Indicators for measuring health gains (W.H.O., 1974); (b) The Fanshel-Bush HSI (1970; 1972); (c) The University of York studies (Culyer et al., 1971); (d) The Rosser and Watts study (1972); and (e) The Chen and Yang study (1979). Furthermore, these attempts do not entirely meet a fifth criterion: "feasibility" (which deals with the availability and cost of data).

[8] Robertson (1983b) notes that:

> "The role of public participation presents a real dilemma for the planner. On the one hand, it is clearly necessary to provide some counter to the possibility of "closed" decisions by an elite. On the other hand, the quality of that participation is important. To allow too dominant role to lay people may tend to undermine the very technical rationality whose benefits the system is intended to harness".

[9] The range of planning action in a totalitarian context is much wider. As Etzioni (1967, p.391) notes totalitarian societies can plan more but they tend to overshoot the mark.

> "They usually try too much too early and are then forced to adjust their plans after initiation, with the revised policy often scaled down and involving more consensus than the original one."

[10] The difficulties facing many recently re-organized health systems (e.g., in England and Wales, Scotland, Italy, Spain) in finding appropriate organizational structures and policy-making processes would suggest that such a task will not be easy to accomplish in the short run.

[11] The other two rationalities mentioned by Diesing (1962) are: "social rationality" (which is concerned with the maintenance of social interaction and integretion); and "political rationality" (which focuses on the use of authority, power and also alternative decision-making structures).

[12] In my view, in his work Diesing (1962) approaches

rationality mainly from a functionalist perspective which is rather unsuitable to address and pursue innovation and change (see: Ziglio, 1983a; see also Jackson and Ziglio, 1985). Thus, for health promotion planning purposes this model must be considered with caution. Nevertheless, it helps to stress that problems in planning differ according to the kind of rationality that is operating.

[13] These "incongruities" can be incorporated into the concept of uncertainty. According to Mack (1971, p.1) uncertainty is the complement of knowledge:

> "(..) it is the gap between what is known and what needs to be known to make correct decisions. Dealing sensibly with uncertainty is not a byway on the road of responsible business and governmental decisions. It is central to it. The subject is complex, elusive, and omnipresent."

[14] Without going into aspects of epistemological investigation, it can be said that certainty may be dealt with from two different perspectives, rationalist and non-rationalist. In the latter instance complete certainty is unobtainable. The question then arises, whether the rejection of the possibility of completely certain knowledge is justified. It is here that the relationship between certainty-uncertainty on one side and knowledge on the other becomes clouded.
From an epistemological point of view, the distinction between "infallible knowledge" and "fallible certain knowledge" is vital (see: The New Encyclopedia Britannica, 1975, Vol.6, pp.929-948). To deny the possibility of infallible knowledge is not to deny that of certain knowledge.

> "It would appear, therefore, that the schools that speak today of certainty being beyond the reach of men and of all alleged knowledge being only belief are in error and that their error rests on their failure to distinguish between complete certainty, of which man is capable, and knowledge of absolute truth, beyond every possible error, of which, apparently, he is not capable" (New Encyclopedia Britannica, 1975, p.929).

I am aware of the limitations of presenting the relationship between uncertainty and knowledge from an epistemological angle; nevertheless the above statements may have an unexpected relevance for health planning. They imply that (1) actions on certain knowledge can be appropriate; (2) certain knowledge is an "open system"; and (3) the open system of certain knowledge may receive new inputs in the light of experience.
The development of system theories could provide us with more insight. For example, we could deduce that certainty would be applicable to only either finite or infinite (of

closed type) systems (where, in the case of infinite systems, uncertainty still characterizes their sub-systems). But this is not the place for a detailed discussion.

[15] My review of the major decision-making technologies (Ziglio, 1982c) used in the private and public sectors shows that none of them meets all the criteria for effectively taking decisions under uncertainty. These decision-aiding technologies were: (a) Check List; (b) Valuation; (c) Cost-Benefit Analysis; (d) Cost-Effectiveness; (e) Cost-Minimization; (f) Best Guesses; (g) Sensitivity Analysis; (h) Scenario Generation; (i) Experimentation; (j) Model Building; (k) Simulation; (l) Risk Analysis; (m) Decision-Analysis; (n) Delphi Method; and (o) Nominal Group Technique.

CHAPTER 10.: THE PLANNING OF HEALTH PROMOTION IN CONDITIONS OF UNCERTAINTY AND CHANGING ENVIRONMENT: NEW CONCEPTS AND EMERGING THEORIES

This final Chapter analyses emerging concepts of planning and policy-making which have appeared primarily in the literature on futures research, and could be relevant in the development of health promotion policy. Futures research is still in an embryonic stage, nevertheless an analysis of this literature may illuminate planning and policy-making issues in the increasingly complex field of health promotion.

In her PhD thesis Jackson (1981, p.230) argues that:

> "As a greater proportion of society adopts non-conventional beliefs, policy-makers and planners are faced with the problem of deciding which concepts to encourage and in which direction to influence change processes. A situation in which basic assumptions are being questioned is uncertain and rapidly changing and therefore difficult for the planners to work in using traditional methods of planning based on the analysis of trends, prediction, and the production of a plan."

Thus, particularly in situations characterized by a shift in health priorities (with emphasis on health promotion policies), as occurred in Canada and Norway, we need to improve our capabilities of analysing and guiding decisions even in situations of high uncertainty.

It has been argued that health planners and policy-makers face an uncertain, unpredictable and rapidly changing environment; yet they are using traditional planning

processes which are no longer effective under such conditions (see: Jackson, 1981; Jackson and Ziglio, 1985; see also Chapter 9). In this Chapter, I shall consider the emerging concepts and theories which might be useful for addressing uncertainty and rapidly changing environments. A systematic analysis of relevant periodicals [1] as well as a review of the major works published in the last 15 years, on this topic, has been carried out for this purpose. The Chapter will attempt to identify the weaknesses of these emerging concepts and theories when applied to the area of health promotion. An awareness of the possible shortcomings of responses to uncertainty and rapidly changing environments should place us in a better position for their possible application in health promotion policy-making.

The emphasis of the Chapter is more exploratory than prescriptive. It is maintained, in fact, that for a "new" policy area such as that of health promotion it is more useful to attempt to develop new questions and understand the complexity of the problems at hand than to provide definitive statements.

10.1 Categories of Decisions and Their Relevance for Health Promotion Planning and Policy-making

Generally speaking, many of the difficulties in making decisions would be eliminated if there were a consensus on the relevance of a given problem and if its causes were fully understood. However, this is not the case for most health promotion-related situations, as demonstrated in Chapters 2 and 8. A decision is always a choice between various ways of coping with a particular problem or accomplishing an end, and making such a choice is often a very complex task, as can be seen from the Canadian and Norwegian approaches to health promotion analysed in Chapters 6 and 7. In this Section I shall argue that decisions in the health promotion area are likely to be non-routine and innovative in nature, with characteristically uncertain outcomes. These types of decisions should not exonerate but stimulate policy-makers and planners into identifying suitable policy-making models which minimize drawbacks and maximize their innovative scope and pursuit of change.[2]

It is worth summarizing the features of the decisons we are likely to face in health promotion policy.[3] Knowing which kind of decision we are dealing with may help us to identify suitable decision processes in the making of our policy.

Delbecq (1967) groups decisions into three categories; other authors such as Thompson (1967) and Harrison (1975)

propose similar classifications.

1. Routine Decisions: when there is an agreement upon the desired goal, and technologies exist to achieve the goal.

2. Creative Decisions: where there is no agreed method of dealing with the problem. This lack of certainty may be related to incomplete knowledge of causation, or lack of an appropriate solution strategy.

3. Negotiated Decisions: because of differences in norms, values or interests, opposing factions confront each other over ends and means, or both.

With respect to the proposals stemming from the Lalonde Report in Canada (with its emphasis on health promotion: see Chapters 4 and 6), and the rationale of the Norwegian NNFP (see Chapter 7), the policy decisions involved would be mainly of type 2. But, it has been interesting to see how much they have shifted (particularly in Canada) towards decisions of type 3 (see: Chapter 6, Section 6.3 and Chapter 7, Section 7.5).

Another important point in analysing types of decisions in the health promotion area is the link between decision and action. In fact, for any type of policy, a decision is qualified by the action stemming from it. According to Kepner and Tregoe (1965, Chapters 10, pp. 174-179, and 11, pp. 217-218 and 221-228) decisions can bring about actions of the following types (see below).

Interim action: this is taken before the cause of the particular problem has been found, and corrective action becomes possible. Interim action is taken when there is the necessity to keep the policy going. It gives time to complete specification and analysis of the problem.

Adaptive action: this is taken after having identified the cause of a particular problem. Two possible situations may be faced here. Either nothing can be done to eliminate this cause, or it is found that directly correcting the deviation is not feasible. Therefore adaptive actions enable us to cope with the effects of a problem and to minimize them. Adaptive action is sometimes all that can be done in

situations where the cause of a problem lies outside the area of influence and control of a policy or organization.

Corrective action: this is the action that eliminates the deviation effect caused by a particular problem. But it is, of course, only possible where the cause is known.

Preventive action: this action aims to remove the cause of a particular problem, or attempts to reduce the probability that the cause will occur. It is worth pointing out that since each problem may have many possible causes, several courses of action may therefore be taken to prevent these causes. Each possible cause which has been prevented will reduce the probability that the problem itself will occur. After preventive action has been taken, each cause also has a residual probability as to the likelihood of its happening after the best efforts to prevent it have failed. Preventive actions will differ, of course, according to the seriousness or complications of the cause to be prevented.

Contingency action: this is called for where the stakes are very high and where there is a great risk that a failure at one point of the plan will jeopardise the whole operation. Here we are in a situation where we cannot rely, very strongly, on preventive actions to remove the cause of a problem or significantly reduce its probability.

It is worth noting that for preventive action in the complex area of nutrition policy as a health promotion strategy all three of the policy means currently available to governments (i.e. educational, regulatory, and facilitating) should be used (see: Chapter 6, Section 6.4; see also Ringen, 1979).[4] Nevertheless, as health promotion measures in the area of nutrition and food policy are facing an uncertain and rapidly changing environment (see: Chapters 2 and 8 and the analysis of the Canadian and Norwegian policies in Chapters 6 and 7) policy-makers and planners are often compelled to pursue contingency actions.

For practical purposes the types of decisions that have been identified so far could be divided into two basic categories comprising the matching pairs of: (a) routine and non-routine; (b) innovative and non-innovative; and (c)

certainty and uncertainty (see Fig. 10.A).[5] Figure 10.A indicates that Category I includes the routine, recurring and non-innovative decisions that are handled with a high degree of certainty. Category II comprises the non-routine and innovative decisions characterized by considerable uncertainty as to the outcome.[6]

It is self-evident, from what has been said throughout this thesis, that most decisions likely to be taken in the area of health promotion belong to category II. Thus, appropriate planning and policy-making processes should be developed to deal with these types of complex decisions (see: Sections 10.2 and 10.3). Indeed both Norway and Canada should, in my view, redouble their efforts in this direction.

Fig. 10.A - Categories of Decisions -

DECISIONS CATEGORY I

Type: Programmable; Routine; Negotiated; Compromise; Non-innovative.

Internal Structure: Proceduralized; Predictable; Certainty regarding Cause/Effect Reletionship; Recurring within existing Technology; Well-defined Information Channels; Known Decision Criteria.

Strategy: Reliance upon Rules and Principles; Prefabricated Response; Uniform Processing; Computational Techniques; Accepted Methods for handling.

DECISIONS CATEGORY II

Type: Non-routine; Mainly non Programmable; Judgemental; Creative; Innovative; Inspirational.

Internal Structure: Non-proceduralized, Varied Unpredictability; Uncertain Cause/Effect Reletionship; Non-recurring; Information Channels Undefined; Incomplete Knowledge; Decision Criteria may be unknown; Outcome Preferences may be Certain or Uncertain.

Strategy: Reliance upon Judgement; Subjective Forecasting and Intuition; Techniques and Methods for Intervention are not fully known; Learning Attitude and Search for Flexibility in reframing Strategies chosen in the Pursuit of Innovation and/or Change.

10.2 Health Promotion: The Terms of the Complexity and Policy-making Implications

The examples of Canada and Norway, in the area of nutrition and food policy, show that health promotion measures are faced with an uncertain and rapidly changing environment. This Section will argue that in this policy area, attempts to impose control and predictability cannot provide the solution to policy-making and planning under uncertain conditions.

Hence, for the purpose of health promotion, new policy processes and planning approaches should be developed. Uncertainty and complexity should not be seen as indicative of a situation which is "out of control"; but as acceptable conditions for purposeful action.

The complexity of the health promotion field has been described at various points in this thesis. Let it suffice to say here that in this policy area, events beyond the control of a particular sector (e.g. agricultural, economic, health) have direct or indirect health implications. With reference to the analysis of the nutrition and food policy as a health promotion strategy (see: Chapters 2, 6, 7 and 8), we can affirm that in the health promotion field consequences which flow from the actions of individual organizations and/or policy measures lead off in unpredictable directions. Thus, in the health field in general, and particularly in health promotion areas, social events and economic factors normally considered to be beyond the purview of the health system, and certainly beyond its

control, interact with each other and may have an impact on health in umpredictable ways (see: Jackson, 1981; Jackson and Ziglio, 1985).

The health promotion field can, then, be defined not just as "complex", but as being characterized by an environment of uncertain and changing complexity.[7] The varied nature of the uncertainty existing in the health promotion area reflects also the increasing complexity present in the general health sector (see: Hunter, 1979; 1980; Draper and Smart, 1984; Milio, 1983; Hancock, 1980; 1982a). To sum up, the following trends confirm the complex and changing environment within which health promotion policy operates in Western developed societies.

a) The existence of various, and often conflicting health models (see: Chapter 1, Sections 1.2.2; 1.3.2).

b) A change in the mortality and morbidity pattern (see: Chapter 1, Section 1.1).

c) An expansion of knowledge and professional specializations in the health sector. This trend has exacerbated theoretical and practical conflicts between the differing concepts of health (both individual and community) and the delivery of health services and measures (see: McGlew and Robertson, 1981; Hancock, 1982a; 1982b; Boyd, 1979, Chapter 4).

d) Rapid changes in attitudes and behaviour regarding health and illness (see: Wadsworth et al., 1971; Zola, 1973; Robinson, 1981, Scambler, 1982; see also: Tudor-Hart, 1971; Illsley, 1980, Chapter 3; Fitzpatrick, 1982).

e) Socio-demographic changes consisting both in the demographic make-up of the population and in social roles (see: Edwards, 1983).

f) Advances in medical technology have been off-set by a decrease in the associated marginal benefits. They have led to considerable scepticism as to the desirability of further improvements, and to a move towards research into health promotion policy and preventative measures, though this in turn has been thwarted by uncertainty due to a lack of theoretical back-up or political will for a change in priority setting (see: Chaper 1, Section 1.3).

g) Political changes, which may either hamper or facilitate the drawing up of priorities and the allocation of resources (see: Edwards, op. cit.).

h) Shrinking resources leading to a discrepancy between the amount of supply and demand for services and the resources available.

i) Unpredictibility of input/output trends in the health system (see: Ziglio, 1980, Chapter 1; Edwards, op. cit.).

From what has been said so far we can conclude that the health promotion field is a dynamic, non-linear and interactive system of deep-rooted and still unexplored complexities. It goes without saying that we cannot handle this kind of complexity within the narrow framework characterizing most of the present health policy-making and planning approaches (see: Section 9.3; see also: Henderson, 1981; 1984; Jackson, 1981; Illsley, op. cit., pp. 97-111; 1982; Robertson, 1983b; Jackson and Ziglio, 1985).

10.3 Policy-making and Planning in Conditions of Uncertainty and Changing Environment: A Review of New Concepts and Approaches

In Chapter 9, I have attempted to demonstrate that traditional planning processes such as those inspired by either a rational-deductive or an incremental approach are no longer effective under conditions of uncertainty and rapidly-changing environment. The search for ways of adapting to uncertainty and environments with unpredictable and changing complexity has led to new theories and styles of policy-making and planning which may be relevant to policy-making in health promotion.

My review of the existing literature in this area has revealed that six principles are commonly proposed as responses to uncertainty and rapidly changing environments.[1] "Adaptive"[8] policy-making processes have been recently proposed (mainly at a theoretical level) on the basis of these six principles. The most important feature of an adaptive policy-making and planning model is its emphasis on the process rather than the plan, its future orientation, and its flexibility (see the work of Schon, 1971; Argyris, 1977; Emery, 1977; Emery and Emery, 1978; Trist, 1979b; Henderson, 1981; Jackson, 1981).

These principles [9] are:

1. Decrease deviation-counteracting mechanisms and increase policy-diversifying mechanisms.

2. Make cooperation ond collaboration the primary mediating social relationship instead of competition.

3. Use a future orientation to guide change in a purposeful way.

4. Stop being concerned with predictable control through domination of an entire process, but look for ways of influencing the direction of change for unpredictable social processes.

5. Seek interactive learning processes.

6. Give give more decision-making responsibilities to individuals, small locally-based groups or local community.

Three of the above principles (numbers 1,3 & 4) are considered particularly relevant for policy-making and planning in the health promotion areas and will be dealt with here (see below). The reder should refer to the work of Jackson (1981; 1982) and Jackson and Ziglio (1985) for a full account of all these principles.

With reference to Chapter 9, the principles inspiring adaptive policy-making processes can only be applied in the context of a mixed-scanning approach. Rational-deductive approaches would be too rigid and plan-oriented, while incremental ones would be structured on such a short-term basis that innovation and change would be neglected.

10.3.1 Increase Policy-diversifying Mechanisms

Authors such as Emery and Trist (1965), Trist (1979b) and Friedmann (1976) maintain that rather than increasing bureaucracy and regulations, which tend to decrease diversity and head in the direction of standardization of situations, it would be more appropriate, in conditions of uncertainty and rapidly changing environments, to search for

deviation-amplifying or variety-increasing processes (see: Ozbekhan, 1968, pp212-213 in particular).

However, there is some doubt as to the effectiveness of this principle in health promotion planning and policy-making. On the one hand, it introduces an important element of flexibility in the development of policy (see the work of: Trist, 1978; Maruyama, 1980), giving greater opportunity to locally-based decisions in shaping the organization of health policy and fostering innovative measures. But, on the other hand, the encouragement of diversification may increase both the uncertainty and the complexity of our policy environment (see: Jackson, 1981, Chapter 2, Section 2.3.1; Jackson and Ziglio, 1985). Although an increase in variety or policy heterogeneity may be in tune with pluralism in values and lifestyles (so important in health promotion activities), this trend may also lead to incompatibilities and fragmentation which could weaken the overall policy impact.

For countries such as Canada, with its diversity of socio-cultural and economic situations among the various provinces and its federal/provincial mechanism for policy development, or Norway, with its multitude of scattered small communities, the encouragement of diversity could be an element of high priority in the policy make-up. However, in the case of health promotion policy some dilemmas still remain.

Firstly, an increase in the policy heterogeneity is

intended to go hand in hand with the search for greater tolerance of differing opinions and for mechanisms to regulate possible conflicts. The work of Trist (1979b), Bateson (1972) and Maruyama (1976) is very relevant here. For Trist (op. cit. p. 449) the outcome of processes of conflict resolution should be a "negotiated order". Maruyama (op. cit.) suggests that ideally, conflicting groups should be able to work out "symbiotic interactions" which are mutually beneficial.

It seems to me that these authors overlook the fact that conflict resolutions in pluralistic societies are likely to be of the incremental type. Incrementalism, however, normally tends to rule out the introduction of innovative or fundamental decisions so vital in health promotion policy (see: Chapter 9, Sections 9.1.2; 9.2).

Secondly, in the case of nutrition and food policy it would be essential to identify the "boundaries of diversity". Indeed at central level, and particularly for the development of regulatory policy means (e.g. food safety regulations, nutrition labelling, and so forth), the introduction of diversity could be counterproductive for obvious reasons. Conversely, for educational and facilitating policy means, their heterogeneous use could be effective.

10.3.2. A Future Orientation in Guiding Health Promotion Policy-making

The need for a strong future orientation to guide health policy developments is an over-riding objective when giving priority to health promotion measures. Marc Lalonde (1977, p.360), as Canadian Minister of Health, made use of this principle in his address to the American Public Health Association:

> "I want to close with some comments on what in the long term will be the fundamental determinant of our health. I am thinking of the ecological, energy and resource limitations of this planet (..). I know this matter goes well beyond the normal terms of reference of the health professional (..) but as people who are manifestly concerned about the well-being of their fellow men and women, I would urge you to extend your mandate to future generations and to support the analysis and action necessary to ensure their survival."

Despite the undeniable importance of this principle, its incorporation in policy-making and planning purposes may turn out to be a very complex task (see below). Emery (1977, p. 124) claims that under uncertainty and within rapidly changing environments:

> "Active adaptation requires some sense of desirable futures as a deliberate step to avoid entrapment in the past."

As Emery (op. cit.) maintains, this principle may be a significant factor in the promotion and development of more flexible planning models which can be adapted to conditions of uncertainty arising in a rapidly changing and complex environment (see also the work of Amara, 1977; 1981a/b/c; 1981d; Phillips, 1983; Barnsley, 1983; Jackson, 1981).

Thus, in the uncertain and complex policy environment covering health promotion, health planners and policy-makers should concentrate on generating possible and desirable future scenarios since the use of past and present trends alone would be maladaptive under such conditions (see: Masini, 1982).[10]

From an analysis of the literature on futures research (see for example: Robertson, 1978; Valaskakis, 1981; Amara, 1981a/b/c; Henchey, 1979; Boucher, 1977), the challenge of identifying and working to create a desired future is complicated by certain pervasive characteristics of today's society such as:

** too many (Polack, 1961), or paradoxically too few (Amara, 1977; 1981), competing images of the future [11];

** too few institutional innovations; and

** inadequate knowledge of how to involve people directly in the process of making decisions.

In view of these shortcomings, the following three issues need to be better explored for the principle of future orientation to make a satisfactory impact on health promotion policy.

First, authors advocating the future orientation principle point out that thinking about the future has been a central human activity since the beginning of civilization (see: Masini, 1982). Attitudes towards the future have certainly contributed to shaping history at different times, both in terms of how people look at the future and how contemporary values affect future perspectives (see: McHale, 1969; Amara, 1977, 1981d; Masini, op. cit.).[12] The

literature on futures research refers to the concept of "image" as the basis for thinking about the future. As far as this concept is concerned, and its potential use in health promotion policy-making, we can argue that the term "image" is both seductive in the promise it appears to hold and frustrating in the evasiveness of the answers and practical recommendations which it provides. The concept, as will be demonstrated below, carries an ambiguity at its conceptual heart that necessitates care in its application to policy-making.

In fact, although there is consensus on the conceptualization of an "image" as a driving force for thinking constructively about the future and shaping it (see: Polak, 1961; Barnsley, 1983; Amara, 1977; 1981d; Masini, 1982), we know very little about the dynamics of image formation, shaping and transmission. Amara (1981d, p. 1) notes that:

> "We do not know exactly how images affect individual and social behaviour. We do not know why they sometimes lead cultural development and sometimes lag behind it. We do not even know how amenable they may be to study and analysis. Yet images of the future are so central to the progress of society that an understanding of the dynamics of their formation and renewal is essential."

In the areas of health promotion where "ecologist", "environmentalist", and also "self-help" images have dominant roles, it would be desirable, although very difficult to fulfil, the following:

a) learn how to be more selective in sharing images without at the same time restricting access to them;

b) learn how to coalesce private or group images so that they become guidelines for collective action (i.e. one must

learn to cope with a rich variety of images without the accompanying divisiveness that often makes consensus elusive; and

c) learn how constructively to link knowledge, image-forming and political action. The problem here is that it is not sufficient (although indispensable) to obtain a more informed, balanced and constructive public discussion of health promotion issues. We need new and more immaginative policy processes (see below; see also Section 10.3.3).[13]

Second, the relationship between knowledge, image-forming and political processes is handicapped by a well-documented inability on the part of our societal institutions to promote or adapt effectively to change. Authors such as Etzioni (1964), Crozier (1969), Friedmann (1973); and Amara (1977, 1981d), have analysed the loss of confidence in societal institutions and their resistance to change. The following institutional characteristics may provide serious obstacles to the implementation of health promotion policies where a radical shift in priorities and changes in policy trends is necessary.

i) Many new institutions are created without dismantling old ones: this often results in an overlapping of functions and a blurring of jurisdictions (see: Friedmann, op. cit.; Crozier, 1979; Amara, 1981d).

ii) The structure of many institutions conflicts with their stated aims and functions: our understanding of innovative ways of structuring institutions so as best to fulfil their goals is still very primitive in the public sector (see: Friedmann, 1973; 1976; see also Schumacher, 1973; Amara, 1977). The tendency towards centralization and pyramidal structures with a vertical chain of command and line/staff division of functions is very common in public bureaucracies, including the health sector. It is self-evident that these organizational structures are not very effective for interdepartmental planning and for coping with the uncertainty characterizing health promotion policies.

iii) The control of institutions tends to become vested in people who have achieved positions of power by virtue of seniority (Amara, 1981d). As this occurs, resistance to change and innovation may increase proportionately. In addition to this, internal institutional incentive structures are such that long-range goals (a fundamental

feature in health promotion goals) are severely compromised in order to pursue short-term objectives (see: Amara, op. cit.). Hence, it may be that short-term problems generally drive out long-term planning.[14]
Thus, in advocating the need for health promotion we may face a paradox: on the one hand, we need a strong power to take innovative decisions and pursue change, whereas on the other, we need a devolution of existing bureaucratic patterns of management [15] and a rediscovery of interdisciplinary and interdepartmental planning characterized by learning processes (see: Section 10.3.3).

iv) Few adequate measures of social accountability exist for judging institutional performance. According to Amara (1981d, p.2), after more than a decade of rhetoric about corporate social responsibility, real questions can still be raised about the practicality or reality of this concept (see also: Livett, 1980; Robertson, 1983b).[16]
As far as the area of health promotion is concerned, the definition of accountability has been so far rather elusive. Consequently, its potential role in shaping policy development is marred by vagueness and ingenuousness.[17]

Third, the principle of future orientation, applied to policy-making and planning in the area of health promotion, involves developing a "normative vision" of the future. This vision should guide the development of strategies, policies and programmes which are to interact with each other and with the development of other health-related policies, and will therefore require continuous adjustment (see: Jackson, 1981, pp. 219-220). However, we must realize that in order to obtain a workable normative vision of the future centred on health promotion there are two requirements:

a) a shift in paradigms in the health and health-related fields (see: Section 10.4; see also Chapter 1, Section 1.3); and

b) an improvement in our capability of assessing proposed scenarios for the future.[18]

At present, neither requirement is properly met.

10.3.3 Planning Should Focus on Influence instead of Predictability and Control

From what has been said in Section 10.1, planning in the area of health promotion should turn away from predictability and control through domination of an entire process, and look for ways of influencing the direction of change of unpredictable social processes. Mechanistic and deterministic thinking have heavily influenced our conceptualization of planning and decision-making (Jackson, 1981, pp.59-62; see also Lesse, 1975; Capra, 1982). As a result of such thinking, planners are expected to be able to predict and control, and a failure to do so is usally seen as a sign of incompetence. Errors therefore tend to be covered up. When faced with unpredictability, policy-makers are tempted to cling even more fiecely to regulations, hierarchies of command and increased centralization.

The above-specified planning characteristics are questionable (if not entirely maladaptive) under conditions of uncertainty and changing environment (as demonstrated in Chapter 9 and in Section 10.1). In such circumstances, in fact, the exercise of control becomes a very delicate activity. Rippey (1980, p.7) gets to the crux of the matter:

> "Future decisions must tread on ground previously untouched (..). The mind has developed remarkable powers in dealing with facts and measurable quantities through the methods of science. This power, however, has developed at the expense of another road not taken. What we have developed poorly are the powers of the intellect for dealing with uncertainty and partial knowledge. This is an area of great inefficiency today. Indeed we

> tend to reject partial knowledge as valueless, uncertainty as whimsical or perverse." (Emphasis added)

In the area of health promotion therefore planning activities and policy-making must grant status to partial knowledge and subjective assessement.[19] Of course, the use of partial knowledge can result in errors. Hence, planners should see themselves more as uncertainty-reducers and facilitators of policy-processes and learn to live with both responsibility and uncertainty, rather than as the masterminds of a plan with predictable and desirable outcomes.[20]

Although working from different perspectives, authors such as Michael (1973; 1980); Fridmann (1976); Emery (1977) Trist (1979a); Schon (1971); Jackson (1981) and Cummings (1983), propose adaptive planning processes with a dynamic mediation between (partial) knowledge and action, to substitute for an obsolete and maladaptive concept of planning based on predictability and control. These authors maintain that society can be influenced (not controlled) in the direction of a desired future; and that, in a policy process, competence is measured by one's ability to learn, experiment and accept errors. They feel that adaptive planning processes should use "self-guiding" social mechanisms within a normative framework, which could reinforce decision-making power at the local level.

However, the problem of linking knowledge to action, under the conceptual framework proposed by the above-mentioned authors, may prove to be extremely complex,

with the "principles" of adaptive planning still providing only very marginal, and sometimes even confusing, guidance. With reference to the area of health promotion policy, the following considerations illustrate the vagueness, lack of sociological precision and conflicting nature of the principle under discussion.

First, as we have seen, one of the assumptions underlying the principle of "influence instead of control" is that of decentralization as an effective element for an adaptive planning process. It is worth noting that decentralization processes should comprise: (a) the decentralization of power (political and economic); and (b) the decentralization of knowledge. It is surprising that the first is much discussed (see for example: Friedmann, 1976; Hebbert, 1982; see also: Levi, 1978; Crozier and Griedberg, 1978), whereas the second is generally neglected. This latter type of decentralization (e.g. locating experts, information, research activities and so forth more widely within the various policy-making levels) may come into conflict with the criteria of cost-containment, particularly in periods of economic recession. Nevertheless, any decentralization of the decision-making process, if not backed up by a parallel increase in decentralization of knowledge, or vice versa, may subsequentely prove to be ineffective and even contradictory (see: Section 10.4).

Furthermore, most of the authors in favour of decentralization as an element of the planning process overlook the fact that advocacy of this principle can be

inspired by very different motivations.[21] Maruyama 1980, p.27) perspicaciously argues that decentralization may be advocated by people with very different epistemological assumptions:

> "a) Homogeneists may advocate it on the assumption that all communities are alike and the whole country is homogeneous, and therefore nothing is lost by dividing it into small pieces;
>
> b) Individualists, isolationists and separatists may advocate it on the assumption that each community is different, unrelated to others, independent and self-sufficient.
>
> c) Heterogenistic interactionists may advocate it because they see the communities as heterogeneous and interacting for mutual benefit, and believe it makes sense for heterogeneous communities to be administered separately, based on the assumption that they interact non-hierarchically."

Second, in the area of health promotion, policy outcomes can be affected by multiple power centres (e.g. decisions taken in the Ministries of Health, Agriculture, Environment, etc.). There is no guarantee that decentralization of decision-making will not produce a fragmented and complex policy-making process. The formulation and development of health promotion policy could then be hampered by slow and intricate policy processes. This is likely to lead to conflicts between different perspectives and locally-based interests. The policy-making model most likely to be used, in such circumstances, is the incremental one with its emphasis on consultative processes and marginal developments, but this does not fit the requirements for change and innovation.[22]

Third, the present literature on "adaptive" planning and policy-making is too optimistic regarding the fact that through decentralization, devolution and deregulation a mechanism of "learning attitude" (see notes [23] and [24]) will automatically be set in motion. The inputs into this process from planners, policy-makers and the public at large have either been overlooked or approached in a very idealistic way. In Sections 10.3.1 and 10.3.2 I have already commented on the role of public acountability in shaping policy-making processes; thus I shall concentrate here on the other two categories (namely: (i) planners; and (ii) policy-makers).

Two of the inputs that planners and policy-makers (e.g. politicians) may feed into the "learning process" deserve attention here. These inputs are: (a) knowledge; and (b) risk-taking capacity. In health promotion policy these two elements can bring about perverse outcomes which may disrupt learning attitudes in planning and policy-making (see below).

As far as technical knowledge is concerned, this may allow experts to exercise a certain degree of control over some of the factors influencing the promotion of health. Bearing in mind the uncertainty present in this area, part of this knowledge is the awareness of what planners and policy-makers do not know. Ideally, in mutual learning processes such an open confrontation of uncertainty should make it possible to keep on the agenda the issue of what still remains to be investigated. This could indeed lead to new discoveries and actions. However, open confrontation of

uncertainty can be used by vested interest groups in lobbying activities, based upon what is not yet known, with the intention of stopping health-promotion measures. The analysis of the reasons for the failure of Canada's food strategy in Chapter 6 (see Section 6.3) gives examples of interest groups which rejected policy-measures with the excuse that not all the knowledge is available to justify actions such as reduction of meat consumption, fast food, and so forth.

Risk-taking capability is another important characteristic in planning and policy-making processes (see: Eaton, 1980). Friedmann (1973, p.185) is optimistic that a mutual learning attitude, between planners (as well as policy-makers) and clients, guarantees a positive outcome which minimizes risks and maximizes new understanding of possibilities for change.[25] However, in the health promotion area, there is no a priori guarantee that the process will not be disrupted by conflicts in values and solutions held by planners, policy-makers and the public (or part of it).[26]

10.4 Conclusion

It is rather disappointing that neither the literature on the Canadian approach to health promotion nor that on the Norwegian NNFP refer directly to the new principles of policy-making and planning analysed in this Chapter. In both countries the new trend towards health promotion has been developed using traditional approaches to policy-making. Chapters 6 and 7 have argued that this is a particularly serious drawback in Canada's experience of health promotion (where the policy area covering nutrition policy is highly fragmented and characterized by "disjointed incrementalism"; see: Chapter 6, Sections 6.3.1; 6.5.1).

In this Chapter I have also pointed to the difficulties and contradictions in the prescriptive use of the major principles identified as adaptive responses to uncertainty and rapidly changing environments when applied to health promotion policy. These "adaptive" principles lack sociological precision (see: Hebbert, 1982), they are proposed in a rather vague manner and are not yet supported by a comprehensive and tested body of theory.

Chapter 1 and the works of Draper and Smart (1984), Milio (1983), Hancock (1980), Fuchs (1974), Lalonde (1974), Carlson (1975), Illich (1975), Jackson (1981), illustrate that we are facing a departure from traditionally dominant paradigms of health and health policy and that a set of new ones is gradually emerging. In this perspective the Lalonde Report in Canada and the NNFP in Norway (in their different

ways) are examples of a shift in paradigms relevant to health and health policy. As can be seen from the varying points of view of the authors quoted above, there is agreement that future improvements in health will depend on other interventions beyond the traditional territory of medical practice. However, there is consensus neither on the direction of future health policy, nor on the policy means to be used. The diversity of approaches in the Norwegian and Canadian models of health promotion policy confirms this statement. The analyses in Chapters 6 and 7 show that the Norwegian NNFP is a much more radical departure from the traditional health policy paradigm than the Canadian model of health promotion policy. The fact that in the Norwegian approach all three policy means (i.e. educational, regulatory, and facilitating) are used, both helps to improve the credibility of such an approach and may even reinforce emerging paradigms.

Thus, in spite of the fact that we are going through a phase where traditional health paradigms are changing or challenged by new ones, there is as yet no "new dominant" paradigm. Indeed, as a competing paradigm is gradually accepted as a new conceptual framework, there is a period of transition characterized by confusion caused by the co-existence of controversial and contradictory theories and explanations (see: Kuhn, 1970; Jackson, op. cit.; see also Hills, 1981; Capra, 1982). It is with this in mind that the principles of adaptive policy-making and planning should be analysed and cautiously applied to the health promotion area.

In promoting health there is a clear need to find ways of tackling global problems at both the national and local level. This Chapter has demonstrated that current planning and policy-making approaches are poorly equipped for such a complex task (see also Chapters 8 and 9). In this area major improvements and innovation are needed.

Of course, it would be naive, at this stage, to put forward a solution to the problem of promoting health under conditions of uncertainty and rapidly changing environment. Nevertheless, this thesis has provided a critical analysis of:

(a) the two most original approaches to health promotion in Western developed countries; and

(b) the emerging concepts for adaptive planning and policy-making in the area of health promotion.

It would seem, in fact, that in such a period of change it is often more useful to attempt to develop new questions and perspectives than to provide definitive statements. An awareness of the difficulties faced by Canada and Norway in their health promotion policies, and the identification of the weaknesses of the emerging concepts of planning and policy-making should place us in a more favourable position for future improvements in our attempts to develop health promotion strategies.

NOTES

[1] The following is the list of periodicals referred to: (1) Am. Jnl of Health Planning; (2) Futures; (3) The Futurist; (4) Health Services Research; (5) Harvard Business Review; (6) Human Relations; (7) Int. Jnl of Health Services; (8) Jnl of Social Policy; (9) Long Range Planning; (10) Management Science; (11) Operations Research; (12) Policy Sciences; (13) Social Policy; (14) Public Administration Review; (15) Technology Forecasting and Social Change; (16) World Future Society Bulletin.

[2] From Chapter 9 it can be seen that some kind of mixed-scanning approach might provide an acceptable degree of flexibility in order to meet the numerous requirements of health promotion. Further improvements in our ability to deal with complex, unpredictable and rapidly-changing environments would be highly desirable for policy-making in health promotion.

[3] A decision is often a compromise between what is wanted in an ideal sense, and what can actually be done politically and technically. In the case of health promotion policies, such as those of Canada and Norway, the ideal way of overcoming the disturbing effect of various sources of uncertainty would require the following features (see: Ziglio, 1982c; see also: Phillips, 1978; Kepner and Trogoe, 1965, pp.173-174).

(a) First of all we should be able to evaluate several decision options relative to each other.
(b) The approach should accomodate multiple objectives even if some conflict and are of different importance or seem to be incommensurable.
(c) The approach should enable a mixture of tangible and intangible criteria to be considered.
(d) The approach should provide for uncertainty about events as well as uncertain quantities.
(e) It should be possible for uncertainty to be reduced when experiments are carried out or when systematically-gathered data are available.
(f) The approach should make it possible for the decision-maker to incorporate time preferences as well as conscious degrees of intuition and value judgements.
(g) It should be possible to include modelling and simulation when necessary.
(h) The approach should be sufficiently flexible and intelligible to deal with issues stemming from political processes (particularly regarding value judgements).

Unfortunately, in the case of health promotion, it is very unlikely that there will be a situation in which the above eight criteria could be easily used to shape policy decisions.

[4] The use of only one or two of these policy means, as in the Canadian approach to health promotion, with its emphasis on educational policy means, shifts the action from a preventive to adaptive or corrective nature. Thus, the scope of health promotion is considerably narrowed down (see Chapter 6). Of course, the danger of limiting the range of action in health promotion measures also threatens the future of the NNFP.

[5] A similar approach can be found in the work of Harrison (1975). See also the work of Bertin et al., (1981, Chapters 2 and 3).

[6] It would also be possible to identify other types such as: non-routine, innovative and certain; non-routine, non-innovative and certain. They are not considered here as they will be faced very rarely in reality.

[7] The presence of elements of "uncertainty", "complexity", and "rapid change" have encouraged certain authors (see: Jackson, 1981; 1982; Hunter, 1980) to use the terms "turbulent environment" also for the health field. According to the famous works of Emery and Trist (1965); Emery (1977) and Trist (1978) a "turbulent environment" is characteristically complex, uncertain, rapidly changing and beyond the scope or control of any one element. However, in this chapter I have prefered to use the terms "uncertainty" and "rapidly changing environments" as they better emphasise the still unexplored depths of the concept of health promotion and the uncertainty surrounding available health promotion policy means.

[8] It is important to stress the fact that the use of the term "adaptive" here implies also a <u>pro-active</u> function. Otherwise, if planning models addressing conditions of uncertainty and a rapidly changing environment imply only reactive responses, they can be accused of being mere versions of functionalism. In this latter case, therefore, they would be maladaptive to a rapidly changing environment because they would render the status-quo (see: Jackson and Ziglio, 1985).

Generally speaking, when people are faced with the uncertainties and complexities of a given environment, there are at least four possible attitudes that they can take. Only one of these attitudes (see below) regards uncertainty, complexity and rapidly changing environments as acceptable and requiring (pro-active) adaptation (see: Jackson, 1982). These attitudes can be outlined as follows:

a) Ignorance of the existence of the elements of uncertainty, complexity and rapid change characterizing the environment, or pretending that a "disturbed reactive" (see: Emery and Trist, 1965) still exists. People continue "business as usual".

b) Recognition of the existence of uncertainty and rapid change, but it is deemed too complex to do anything about.

People "opt out" of society".
c) Recognition of the existence of uncertainty, complexity and rapid change, but they are not accepted and attempts are made to return to a disturbed reactive environment. People actively trying to return to the "good old days".
d) Recognition and acceptance of uncertainty and rapidly changing environment. Attempts are made to reframe the situation, invent adaptive responses and pursue change.

[9] The principles have been identified from an analysis of the periodicals listed in note [1]. Furthermore, these principles particularly reflect the work of Ackoff (1974); Emery and Trist (1965); Emery (1977); Emery and Emery (1978); Ferguson (1980); Friedmann (1973); Agyris (1977); Henderson (1981); Jackson (1981); Jantsch (1975); McWhinnie (1980); Michael (1973); Robertson J. (1978); Schon (1971); Schumacher (1973); Trist (1979a; 1979b); Wiseman (1980).
In her PhD thesis ("Planning for Health in a Changing Society"), Jackson (1981) identifies the same six principles. However, in Jackson's work the possibilities of adopting these principles for planning in the health field is treated with greater optimism than in this thesis.

[10] Clearly, at a time of rapid change, where elements of uncertainty prevail, the future cannot be considered as a straightforward extrapolation, or mechanical extension, of the present (see for instance the works of Ozbekhan, 1968; Ackoff, 1974; Henderson, 1981; for examples of scenarios generation see the works of Robertson J., 1978 and Valaskakis, 1981).

[11] Some writers, such as Polak (1961), maintain that our collective ability to generate compelling images of the future has diminished. Polak (op. cit., Vol.2, p.89) affirms that:

> "Our time is the first in the memory of man which has produced no images of the future, or only negative ones."

Others, such as Amara (1977; 1981d), affirm just the opposite.

> "I would propose that the ease with which images of all kinds are now generated. transmitted, and received has led to image overload as well as information or sensory overload." (Amara, 1981d, p.1)

Some might suggest that the real problem is neither too few nor too many images, but a lack of the right kind of images. Amara (op. cit., p.2) notes that we have too many "I" and "me" (i.e. highly individualized) images, too few "us" and "we" images.

[12] Masini (1982, p.1) notes that:

> "In the 'Republic' of Plato, the vision of a future society is one based on justice. Saint Augustine's 'City of God' is a society based

> on love and pitted against the City of Man based on pride. (..). We can look also at the 'New Atlantis of Francis Bacon, a society based on human greatness, and at Thomas More's 'Utopia', in which communal ownership of goods is central and where the individual is subordinate to community. And we can proceed from these examples to consider the social ideals put forward by Comte and Marx to solve the pressing social problems of their eras; (..). All these different visions of a desirable future are in some way embedded in the social structures from which they emerge, and are linked to the needs and hopes of the people living at the time."

In her article Masini maintains that in the present time we need to look at the future in ways that go beyond the creation of beautifully conceived but ultimately illusive utopias. Masini reviews the development and philosophical bases of futures thinking since World War II and proposes an expanded role for the futurist that would combine analysis with creative immagination and productive action.

[13] According to Draper and his colleagues of the USHP (USHP, 1978, Chapter 5, p.53) health promoting improvements will depend, to some extent, on political parties and politicians, but to a greater extent, on the mass media.

> "People, parties and politicians are highly dependent on the media which largely determine who speaks, for how long and on what. Furthermore, the mass media create the general climate in which policies emerge. For too long the public discussion of health issues (..) has been [too] narrow (..)."

Barnsley (1983, p.7) argues that in North America and in Western Europe political leaders, concerned with immediate election gains, short-term developments and discrete issues have very little (if at all) contributed to evolving a truly positive image of the future that can, and indeed should, command consent and willing anticipation. Present policy-making processes should then be assessed as to their effectiveness in introducing images of health promotion with its emphasis on the future and on changes in existing health, social and economic policies (see: Draper et al., 1977; Valaskakis, 1981; Hancock, 1982b; Milio; 1983).

[14] Amara (1981d, p.2) points out that:

> "Managers tend to 'squeeze out' the maximum short-term gains in each position they hold as they move through organizations. In so doing they frequently sacrifice important long-term benefits or, alternatively, incur implicit long-term costs."

[15] It has been pointed out (see: USHP, 1978, Chapter 5)

that many ministries or senior officers like a "strong Department", confusing size and formal power with effectiveness. Very often Departments fight for power rather than for the solution of complex problems covered by their jurisdiction.

[16] Stimulating work can be found in the Italian debate on the role of public accountability in shaping health policy (see: Maccacaro, 1972; L'Abate, 1978; Bertin et al. 1981, Chapter 1).

[17] In my view, in the health promotion policy area it is indispensable to develop new forms of bargaining, negotiating, conflict resolution and problem-solving. The work of Lehman-Wilzig (1983) provides stimulating insights for a more innovative approach to public accountability in Western developed nations (see also: Rivera, 1983; Cummings, 1983). To have a positive impact on the development of health promotion, increased participation must go hand in hand with improved capability for coping with the proliferation of actions and inputs which can result from the use of direct action, lobbying, issue group, etc..

[18] The works of Henchey (1978); Robertson, J. (1978); and Hancock (1980, March; 1981), tell us that we must consider not just the future, but many alternative futures (see also: Bertrand de Jouvenel, 1974; Dror, 1974; Masini. 1982; Simmonds, 1983).
Amara (1981b) proposes some guidelines for judging works in the future field. These guidelines are also relevant to the area of health promotion. He derives three kinds of goals for planner and policy makers in following the principle of future orientation. These are:
The Possible, or what "can be", which refers to the futurist's role of conceiving and explaining alternative futures, of creating new images of what the future could be.
The Probable, or what "may be", is the analytical arm of the field and involves examining in detail alternative paths to and choices about the future.
The Preferable, or what "should be", which refers to work in advocating and implementing choices and paths that people who will be affected by the choices made feel are the most desirable.

According to Amara (op. cit.; see also Amara, 1977; 1981c), the work in the future field can be criticised at three levels:
Conceptual Criticisms: e.g. absence of framework; failure to predict; overpromising of results.
Analytical Criticisms: e.g. inadequate methodological tools; incomplete theories of change; unsuitable validation criteria.
Utilitarian Criticisms: e.g. irrelevance and low credibility of outcomes; marginal utility of results; insignificant impact on perception and action.

Three general criteria can be used to meet the three main

categories of criticisms. These criteria (see below) can be used in evaluating the way in which the principles of future orientation have been used in shaping health promotion activities. These criteria can be outlined as:
Conceptual Explicitness: e.g. (a) Are the futurist's premises explicit? (b) Are the purposes of the activity explicit? (b) Are the futurist's values explicit?
Analytical Clarity: e.g. (a) Are the futurist's methods explicit? (b) Does the product include a description of change processes? (c) Is there time to act?
Utilitarian Objectives: e.g. (a) Is the policy outcome clear and specific? (b) Is the outcome credible? (c) Does the outcome change perspectives and guide action?

It is worth stressing that the above criteria have been used as guidelines in preparing both the NNFP Delphi questions and the "flexible guide" for exploring policy-issues related the Canadian approach to health promotion.

[19] For an analysis of the use of partial knowledge and subjective judgement in decision-making see: Helmer and Rescher (1959); Delbecq et al. (1975); see also Rippey (1980); Eaton (1980); Wagshal (1982); Marien (1983).

[20] Friedmann (1976, p.2) gives the example of the "planning paradox". This is explained as follows:

> "When you have least need of it, because nothing changes, planning works best, (..). But when it would be needed most, because nothing ever stays the same for very long, planning does not even serve us as a guide to a desired future. The reason for this paradox is the uncertainty of our knowledge, particularly of our knowledge of the future".

[21] For a very stimulating critique of decentralization processes and of the "territorial approach" see the work of Hebbert (1982).

[22] The "error-embracing attitude", embodied within the principle of "influence instead of control", could minimize the perverse and undesirable outcomes of using decentralization, non-hierarchical structures and deregulation as adaptive responses to uncertainty and rapidly changing environment. Trist (1979a), Emery (1977), Friedmann (1973; 1976), Michael (1973) and Schon (1971) have all mentioned the need for society to adopt an attitude of continuous learning (see also: Maruyama, 1976; see also note [23]). Friedmann (1973) argues that authoritarian and non-participative bureaucracies create social alienation and advocates that the planning process be one of mutual learning, that we must always be ready to learn from our mistakes.

[23] Friedmann (1976, p.7) argues that in a complex and

rapidly changing environment we need:

> "to transform the social guidance system (..) into an innovative social learning system." (Emphasis added)

Friedmann (op. cit.) specifies that this new system would have to correspond to at least three criteria.
The first asserts that social learning systems should be structured so as to enhance the probability of innovation. The second criterion of social learning involves acting. Fridmann affirms that social learning is not merely a more sophisticated form of learning-by-doing. It arises exclusively from the interplay of the four elements of social practice: (a) theory of reality; (b) social values; (c) political strategy; and (d) social action. Thus, in Friedmann's view (op. cit.) social learning requires:

> "(..) a set of values to which it gives expression, a theory of how the world is put together, and a strategy for acting - all of them components of a single process that are subject to verification and revision in the light of the consequences of action itself."

The third criterion is that the structure of a social learning system should increase the opportunity for dialogue and face-to-face reletionships.
To sum up, for Friedmann social learning is a dialectical process, a process of reflexive action, that takes place in the environments from which we learn in the very process of transforming them (see Friedmann, op. cit., p.8) Friedmann's work has influenced what is known as the territorial approach to planning (see note [22]).

[24] Normative learning models have been proposed in the last two decades as being the most adaptive to conditions of uncertainty and rapidly changing environments. Ozbekhan (1968) describes three hierarchically related levels of planning. At the bottom is "operational planning", which carries out the daily aspects of implementation and has its boundaries defined by the "strategic planning". The strategic level develops a strategy to serve particular goals. The goals are determined at the top level of the hierarchy: the "normative level". At that level, an ideal vision of the future is developed and serves to guide the actions and operations. Although Ozbekhan does not ignore feedback in his model, influence is clearly transmitted downwords (see the analysis of Jackson, 1981, pp.40-51).

Authors such as Ackoff (1974); Emery (1977); and particularly Bateson (1972); Argyris (1977) and Wiseman (1980), contribute to making this model more flexible, capable of rapid adjustments and directed towards a desired future. The attempt of these authors is to guarantee more interaction among all levels of Ozbekhan's hierarchical model. Thus, from these contributions the normative level is linked through "learning loops" with the strategic and operational level and with the social environment; and becomes: a "normative learning" system. These learning-loops link the various level of planning with external events and people.

In reviewing the major works on normative learning models, Jackson (1981, pp. 42-43) notes that:

> "In the normative learning model, there is a constant dialectic between the real world and the non-real world of ideas. This interaction gradually clarifies the vision and at the same time allows for the possibility of developing new kinds of strategies."

Ackoff (op. cit.) specifies two constraints on this "idealistic" process: "the visions must be technically feasible and economically viable." However, although Ackoff's suggestions would improve the practicability of the model it must be noted that if visions are too realistic, they are in danger of being either too pragmatic or simply extensions of past trends.
In line with a normative learning model the work of Wiseman (1980) offers a very good example of the possibility of developing a mixed-scanning approach where efforts are made to introduce the principle of a learning model which is technically and politically realistic.

Perhaps the most serious limitation of the works on normative learning models is their belief that the re-examination of norms and values, within a normative learning framework, will necessarily bring about more progressive ideas for the future and strategies for its attainment. Thus, the model itself can be accused of being deterministic and therefore not adaptable to situations of uncertainty and rapidly changing environment. In my view, in the area of health promotion normative learning models are indispensable, but we should pursue them with the awareness that the dialectical processes (between the various levels of the model: i.e. operational, strategic, normative), may even result in regressive directions. Hence the need to improve our capability of thinking about the future (see note [19].

[25] Friedmann (1973, p.185) optimistically believes that a mutual learning attitude will guarantee a positive outcome:

> "In mutual learning, planner and client each learn from the other - the planner from the client's personal knowledge, the client from the planner's technical expertise. In this process, the knowledge of both undergoes a major change. A common image of the situation evolves through dialogue: a new understanding of the possibilities for change is discovered. And in accord with this knowledge, the client will be predisposed to act."

Friedmann's view is, however, more feasible in the private sector. Conversely, in the public sector the relationship between planners or policy-makers and clients is not based on face-to-face contacts, here the elements of knowledge, experience, power and action are much more complex both in definition and in role played the policy-making process.

[26] In my opinion, a more sceptical view of the relationship between planners, policy-makers and community

may often avoid disappointment. The saying that "success has many a father; failure is an orphan" may indeed be applied to most policy decisions. It has been noted by Eaton (1980) that politicians like to be seen to "plan carefully". But they also wish to be protected from blame when a plan fails to meat with public approaval. It may happen that in this latter case, the policy-maker claims to have simply been "misled" by planners. Thus, it seems that advocating mutual learning attitudes must go hand in hand with major changes in attitudes towards policy-making (e.g. willingness to take and share risks and contend with the consequences).

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APPENDICES: A and B

APPENDIX A

Interview Schedule Used in the Canadian Fieldwork

NOTE: The outline below is intended to be a 'flexible guide' for exploring policy issues related to nutrition policy, as a health promotion strategy, in Canada. It will be used to guide informal interviews and talks with people involved in this policy area at both federal and provincial levels.

The outline covers a wide range of topics and each respondent will be asked to discuss ONLY THE QUESTIONS WHICH ARE APPLICABLE TO HIS/HER EXPERTISE.

Please choose only the issues which you wish to discuss.

POLICY ISSUES CHOSEN FOR DISCUSSION

BACKGROUND INFORMATION	A1	A2	A3	A4					
FOOD/AGRICULTURAL SYSTEM	B1	B2	B3	B4	B5	B6	B6	B7	B8
POLICY FORMULATION	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	
POLICY IMPLEMENTATION	2.1	2.2	2.3						
POLICY EVALUATION	3.1	3.2	3.3						

FOR YOUR USE DURING INTERVIEW

****

[A] - BACKGROUND INFORMATION -

[A1]

What is the importance attributed to nutrition (either on its own or in conjunction with other factors) as a contributing factor to illness and disease in the Canadian population?

(It would be helpful if you could identify relevant research, documents and publications, where possible)

[A2]

Are there nutritionally vulnerable groups in Canada?

If so, what would you identify as the most important factors (e.g. age, sex, economic status, occupational group, geographical location, etc.) which affect the nutrition of the vulnerable groups?

[A3]

What, if any, influence has the Lalonde Report had on health promotion policy?

-- Have the Lalonde Report and other government initiatives facilitated the placing of a greater emphasis on preventive rather than curative health measures?

[A4]

What are the present developments (if any) in directing priorities towards well-defined health promotion activities?

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[B] - FOOD AND AGRICULTURAL SYSTEM -

Could you please comment on trends in the following areas:

[B1]

Average family expenditure for food purchases

[B2]

Changes in the consumption of important foods (e.g. meat, fish, vegetables, etc.) in kg per person per year before and after the adoption of the nutrition recommendations for Canadians in 1977

[B3]

Percentage contribution (calculated on the basis of calories) of various food groups to total Canadian food consumption before and after the adoption of the 1977 nutrition recommendations

[B4]

Variations (if any) among Canadian provinces and sub-populations in avarage family food expenditure, kg per person consumption of important foods, and percentage contribution of various food groups to the total diet

[B5]

Export and import of food (national figures)

[B6]

Please comment on:

-- Land tenure and future agricultural planning in Canada (with reference also to the various provinces)

-- Energy and transportation policies as they affect food distribution in Canada (with reference also to the various provinces)

-- Banking practices and their impact on farming and food

production

-- Any other important characteristics of the Canadian food and agricultural systems

[B7]

Are the current monitoring techniques of food consumption patterns sophisticated enough to allow trends to be assessed?

[B8]

Please summarize recent developments in price controls and/or subsidies for production or purchase of food consumption (if any)

-- What is the influence of Marketing Boards on price controls, subsidies, and food production and distribution?

-- What effect do the policies of these boards have on food consumption?

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****

1. POLICY FORMULATION

A number of initiatives on nutrition-related matters (e.g. "Integration of Nutrition into the Food Strategy", Government of Canada Discussion Paper, December 12, 1978) from such government departments as National Health and Welfare, Agriculture, and Consumer and Corporate Affairs seem to accept the principle that dietary change is desirable in Canada.

> Bearing in mind this policy background, an exploration of the following issues is proposed:

[1.1]

How are the nutrition problems identified and defined?

-- How are goals in the nutrition policy area related to issues in health, welfare, agriculture, taxes, income, distribution of resources, etc.?

[1.2]

What specific policies (if any) have been formulated in order to address the problems identified?

-- What has been suggested?

-- What approaches to nutrition and food problems in Canada have been accepted and rejected?

-- How likely is it that the approach(es) chosen will succeed?

[1.3]

What are the major obstacles to the the successful implementation of a nutrition and food policy in Canada?

[1.4]

Please identify which governmental (and non-governmental) bodies have jurisdiction over this policy area.

-- Which functions and how much power do these institutions have?

[1.5]

Please consider which interest groups and agencies of government should be involved in this policy area.

-- Outline their strengths and weaknesses, and probable positions on the issues

[1.6]

Is there (or should there be) an administrative structure at federal and provincial levels capable of coping with the problems which are likely to be encountered at the implementation and evaluation stages of this policy area?

[1.7]

What approach has been (or should be) chosen by federal and provincial governments to cope with uncertainties about both the nature of nutritional problems and the impact of a nutritional policy on these problems?

[1.8]

Are the goals of nutritional policy and the strategies chosen to achieve those goals entirely acceptable - ethically, politically, and economically - in the Canadian context?

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2. POLICY IMPLEMENTATION

Successful policy involves both specific goals and adequate means (financial, institutional, manpower, etc.) to carry out the required activities. Bearing this in mind:

[2.1]

What kind of progress has been made and what plans have been developed to promote nutrition policy in Canada at both federal and provincial levels?

-- Are there any municipal and/or private group activities?

[2.2]

At the National Food Strategy Conference (held in Ottawa, February 22-24, 1978) it was stated that the government "had accepted the principle of desirable dietary change as a vital element in its food strategy", and that it was committed to giving nutritional factors "full consideration in its policies and programmes concerned with food production, processing and marketing."

-- What changes (if any) have occurred as a result of this statement?

[2.3]

To what extent do departments plan to co-operate in developing nutrition and food policies?

[2.4]

Please outline the federal-provincial relationship in this policy area

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3. POLICY EVALUATION AND NEW DEVELOPMENT

Although the effect of decisions about nutrition policy as a health promotion strategy will become apparent only over time, it is important to analyse the way in which results have already been (or will be) evaluated.

[3.1]

Please review the procedures used for evaluating the effectiveness and efficiency of programmes related to nutrition policy.

-- What evaluation studies (if any) have been carried out so far?

-- Which criteria have been used (or will be used) to evaluate the outcomes of particular programmes in this policy field?

-- To what extent do the evaluation criteria chosen meet the scientific requirements of validity, sensitivity, and reliability?

[3.2]

What is your opinion about the effectiveness of the measures implemented in this policy area so far?

[3.3]

Which kinds of developments in nutrition and food policies are likely to occur in the future?

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The following is the list of Canadian experts who gave permission to have a taped interview and to quote from it. The reader can consult these taped interviews if required. For reasons of confidentiality the list below does not include those experts who agreed to be interviewed but wished to remain anonymous.

Dr. J. Beare-Rogers, Chief, Bureau of Nutritional Sciences, Nutrition Research Division, Dept. of National Health & Welfare, Ottawa.

Prof. G. Beaton, Dept. of Nutritional Sciences, University

of Toronto.

Mrs. C. Bonds, Nutritionist, Division of Health Promotion, Dept. of Public Health, City of Toronto.

Mrs. H. Brown, Provincial Nutritionist, Ontario Min. of Health, Toronto.

Dr. I. Campbell, Food Scientist, Health Protection Branch, Dept. of National Health & Welfare, Ottawa.

Dr. M. Cheney, Chief, Nutritional Quality of Foods Division, Health Protection Branch, Dept. of National Health & Welfare, Ottawa.

Dr. E. Coffin, Director, Health Protection Branch, Dept. of National Health & Welfare, Ottawa.

Dr. B. Davey, Associate Director, Food Markets Analysis Division, Dept. of Agriculture Canada, Ottowa.

Prof. R. Deber, Dept. of Health Administration, University of Toronto.

Mrs. C. Douney (**), Division of Nutrition, British Columbia Min. of Health, Victoria.

Dr. Hancock, Associate Medical Officer of Health, Dept. of Public Health, City of Toronto.

Prof. J. Hastings, Dept. of Health Administration, University of Toronto.

Dr. F. Hay (**), Director General, Policy Research, Analysis & Liaison Directorate, Dept. of Consumer & Corporate Affairs, Hull, Quebec.

Dr. S. Jackson, Health Planner, Ontario Council of Health, Toronto.

Prof. M. Krondl (**), Dept. of Nutritional Sciences, University of Toronto.

Mr. R. Labonte, Community Health Educator, Dept. of Public Health, City of Toronto.

Dr. M. Law, Assistant Deputy Minister, Dept. of National Health & Welfare, Ottawa.

Prof. R. Love, Dept. of Behavioural Sciences, University of Toronto.

Dr. J. MacKay (**), Director, Division of Nutrition, British Columbia Min. of Health, Victoria.

Prof. H. MacLean, Dept. of Nutritional Sciences, University of Toronto.

Dr. K. McKinley, Food Policy Analyst, Dept. of Consumer & Corporate Affairs, Hull, Quebec.

Prof. R. Mindell, Dept. of Health Administration, University of Toronto.

Dr. I. Munro, Director General, Food Directorate, Dept. of National Health & Welfare, Ottawa.

Dr. K. Murray, Former Director, Bureau of Nutritional Sciences, Health Protection Branch, Dept. of National Health & Welfare, Ottawa.

Dr. H. Nielsen, Chief, Nutrition Programs Unit, Health Promotion Branch, Dept. of National Health & Welfare, Ottawa.

Dr. Z. Sabry (**), Departmental Nutrition Coordinator, Dept. of Agriculture Canada, Ottawa, (former Director of the Food and Nutrition Policy of FAO).

Mrs. S. Wheatley, Former President, Registered Nurses' Association of Ontario, Toronto.

[(**) Short interview, tape not available]

APPENDIX B

****
NORWEGIAN FIELDWORK: INTERVIEW SCHEDULE AND SUMMARY OF THE DELPHI PROCESS
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Interview Schedule Used in the Norwegian Fieldwork

NOTE: the outline below is intended to be a 'flexible guide' for exploring policy-issues related to the Norwegian Nutrition and Food Policy (N.N.F.P.) as a health promotion strategy.

It will be used to conduct informal interviews and talks with people involved in the policy.

It must be added that this outline covers a large range of topics and EACH RESPONDENT WILL BE ASKED TO DISCUSS ONLY THE QUESTIONS WHICH ARE APPLICABLE TO HIS or HER EXPERTISE. Please therefore pick out the issues to which you feel your expertise is more relevant.

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[A] - BACKGROUND INFORMATION -

[A1] Will you please outline some of the most important nutrition problems in Norway at the beginning of the policy.

References:

[A2] What is the research evidence that nutrition (either in its own or in conjunction with other factors) contributes to bad health?

References:

[A3] Are there vulnerable groups in Norway?

If so, which would you identify as the most important factors which affect unhealthy nutrition (e.g., age, sex, economic status, occupational group, geographical location).

Is there evidence to support your opinion?

References:

[A3] To what extent, according to the Norwegian research findings, does each factor, that you have mentioned, contribute to the picture of unhealthy nutrition?

References:

[A5] In a Norwegian Ministry of Social Affairs White Paper ("Om de sosiale tjenester og det sosiale hjelpeapparat - on Social Services - Report n.9 to the Storting 1975-76) it was acknowledged that the bulk of health expenditure goes on supportive services, which are not effective in promoting health.

On the other hand Norwegian health policy seems unlikely to question the effectiveness of medical services (in dealing for ex., with chronic conditions) and it seems therefore very unlikely to produce reductions in cost or an increase in the effectiveness of those services.

- What is your opinion about the above remark?

- Please outline present developments in directing priorities towards well-defined preventive activities.

References:

[A6] Health budget of the country, before and after the formulation of the N.N.F.P.. (Over the period 1970 to the present).

Please include figures about the total budget and for

- Curative Medicine (including services by physicians in both community and hospitals).

- Hospital construction and maintenance

- Preventive Medicine

- Budget for N.N.F.P.

References:

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[B] - FOOD AND AGRICULTURAL SYSTEM -

[B1] Average family expenditure for food purchases.

References:

[B2] Please outline the consumption of important foods in kg per person per year (e.g., grain, meat, fish, etc.) before and after the formulation of the N.N.F.P..

References:

[B3] Please outline the percentage contribution of various food groups calculated on the basis of calories, as regards the Norwegian pattern of food consumption, fore and after the formulation of the N.N.F.P..

References:

[B4] Export and import of foods: national figures.

References:

[B5] Pattern of land tenure and future agiculuture planning.

References:

[B6] Please summarise other important characteristics of the Norwegian food and agiculture system.

References:

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[87] Please summarise price controls and-or subsidies for production or purchase of food commodities as a result of the implementation of the N.N.F.P..

References:

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1. POLICY FORMULATION

1.1 The policy structure was first presented by the Ministry of Agriculture in a White paper to the Parliament in November 1975.

Please, outline subsequent developments.

References:

1.2 The 'rationale' of the N.N.F.P. stems mainly from the assumption that nutrition is a causal factor in many health problems.

In the light of the Norwegian experience, what is the degree of uncertainty in the causal link between nutrition and specific health problems (e.g., cardiovascular diseases, obesity, dental caries, etc.)?

References:

1.3 It has been pointed out by many experts that the policy is characterized by its basic realism.

What is your personal opinion about this statement?

References:

1.4 The policy (at least when formulated in 1975) is sensitive to the needs of three types of 'constituencies':

(a) consumers; (b)producers; (c) the social organization.

This implies that specific goals have to be incorporated into the overall policy objectives.

- To what extent, in the Norwegian experience, are specific goals (set for different interests and different sections of the population) successfully integrated with each other?

- Please summarize the strengths and weaknesses of the Norwegian approach in producing a general increase in social welfare.

- Please summarize the gains and losses of particular vested interests.

References:

1.5 The policy establishes a set of desired outcomes. Certain changes in food consumption are expected to occur towards the early 1990's (e.g., the amount of total energy intake provided by fats should be reduced to 35 per cent by 1990; another goal is to increase self sufficiency in food production to 52 per cent by 1990).

In your opinion, is the policy sufficiently clear in its description of the stages in the process of change?

References:

1.6 It has been pointed out (Winikoff, AJPH, Vol.67, N.6, 1977) that the goals of the N.N.F.P. may still be termed 'general' in that they do not specify foods or quantities or particular diets for any group of people.

On the other hand, the goals are more specific in their nutritional aim, and are more easily converted to government action.

Do you think that such an approach improves the credibility of results?

References:

1.7 Another major assumption is related to the global food situation. In fact, the policy attempts to follow the recommendation of the 1974 World Food Conference.

To what extent are the recommendations of the 1974 WFC applicable within the N.N.F.P.?

References:

1.8 Are the goals of the policy and the strategy chosen to fulfil such goals ethically, politically and economically, entirely acceptable in the Norwegian context?

References:

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2. POLICY IMPLEMENTATION

2.1 Successful policy involves both specific goals and adequate means (financial, institutional, and manpower) to carry out the required activities.

The Norwegian Government (see: Report N.32 to the Storting) in the formulation of the policy stresses the need for the creation of appropriate institutions and institutional links.

- Please outline these institutions and institutional links, and describe the functions of these institutions.

References:

2.2 Policy implementation is seen (Report N.32 to the Storting 1975-76) as a long term process with responsibilities divided amongst the Ministries of Fisheries, Consumer Affairs, Government Administration, Social Affairs, and Foreign Affairs.

Moreover, the formulation of the policy is the result of a cooperative effort between experts in agriculture and in public health.

- How far is policy development planned interdepartmently?

- Please summarize the pros and cons of the current situation.

References:

2.3 It has been noted that a central point in planning a

purposeful nutrition and food policy is the institutional capacity for following up such a policy.

Report N.32 to the Storting pointed out that in order to ensure satisfactory coordination of planning and implementation of nutrition policy, the Government should provide the following administrative solutions:

a) Establishment of an interministerial coordinating body;

b) Reorganization of the National Nutrition Council;

c) Establishment of an office for nutrition in the Ministry of Social Affairs.

- Please summarize the development of governmental action towards goals (a); (b); (c).

- Do you think that such an administrative structure would be capable of coping with the numerous problems encountered at the policy implementation stage?

Please summarize the advantages and disadvantages.

References:

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3. POLICY EVALUATION

3.1 Although the success of the N.N.F.P. cannot be completly evaluated until the future (1990's) it is important to analyse how the policy has tackled the problem of its evaluation.

- Please review the evaluation studies (if any) carried out so far.

References:

3.2 Which criteria will be used (or have been used) to evaluate the outcome?

References:

3.3 To what extent are the evaluation criteria acceptable for the scientific requirements of validity, sensitivity, and reliability?

References:

3.4 Please outline monitoring techniques to be used.

References:

3.5 Please outline any device which is intended to use to detect 'theory failure' and 'program failure'.

References:

3.6 To what degree do process-oriented evaluation procedure cope with problems of cost-containment?

References:

FIRST DELPHI QUESTIONNAIRE

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The present is the first of two DELPHI QUESTIONNAIRE. The aim of this Delphi exercise is to explore and assess the numerous issues involved in pursuing an efficient and effective nutrition and food policy in Norway.

The Delphi exercise sets out to provide an organized method for correlating views and information pertaining to a specific policy area and for allowing the respondents the opportunity to react to and assess differing viewpoints.

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In this Delphi questionnaire you are asked to do 4 things:

1) REVIEW all issues on the questionnaire. Make Comments (or give examples) on the any issue you wish. Fell free to make clarifications, argue in favour of or against issues, ask questions.

Please feel free to add any issue you think relevant in pursuing the policy. Brevity and clarity will facilitate our analysis.

2) RATE the level of Desirability and Feasibility of each issue according to the rating scales overleaf.

3) SELECT the 7 issues you feel are the most important for improving the efficiency/effectiveness of the policy. Assign a value of "7" to the most important. Assign a value of "6" to the next most important, and so on, until the seventh issue (the least important of the seven) is assigned a value of "1".

Note that this is merely a preliminary vote. You will have the opportunity to revote in the final questionnaire.

4) RETURN your response by ...

Please rate the Desirability and Feasibility of the resolution of an issue according to the following scales

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Rating Scale for DESIRABILITY

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[1] VERY DESIRABLE

-- Will have a positive effect and little or no negative effect

-- Social benefits will far outwigh social costs

-- Justifiable on its own merit

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[2] DESIRABLE

-- Will have a positive effect with minimum negative effect

-- Social benefits greater than social costs

-- Justifiable in conjunction with other items

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[3] UNDESIRABLE

-- Will have a negative effect

-- Social costs greater than social benefits

-- May only be justifiable in conjunction with another, highly desirable, item

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[4] VERY UNDESIRABLE

-- Will have a major negative effect

-- Social costs far outweigh any social benefits

-- Not Justifiable

Rating Scale for FEASIBILITY

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[1] DEFINITELY FEASIBLE

-- Can be implemented

-- No further research and development required

-- Necessary resources (financial, manpower, etc.) is presently available

-- No major political obstacles; will be acceptable to the general public

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[2] POSSIBLY FEASIBLE

-- Some indication that this can be implemented

-- Some research and development still required

-- Available resources would have to be supplemented

-- Some minor political obstacles and/or further consideration may have to be given to public reaction, although some indication exsists that this may be acceptable

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[3] POSSIBLY INFEASIBLE

-- Some indication that this cannot be implemented

-- Major research and development needed

-- Large scale increase in resources would be needed

-- Major political obstacles and/or not acceptable to a large proportion of the general public

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[4] DEFINITELY INFEASIBLE

-- Cannot be implemented

--- Research and development needed (e.g. no relevant technology exsists)

-- Unprecedented allocation of resources would be needed

-- Politically unacceptable and/or Unacceptable to the general public

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Format of the First Delphi Questionnaire

Priority Vote	Description of the Issues	COMMENTS	Issue Characteristics DESIRABILITY	FEASIBILITY
----	1)		.....	[1]
			[1] [2]	[2]
			[3] [4]	[3]
				[4]
	.....			
	.....			

Policy-issue Nos	Policy-issues Referring to
1;2;3;4	ORGANIZATION
5;6;7;8;9;10;11;12;13	HEALTH EDUCATION
14;15;16;17;18;19;20;21;22; 23;24;25;26;27;28;29	TACTICS
30;31;32;33;34;35;36;37	RESEARCH & EVALUATION

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LIST OF POLICY-ISSUES INCLUDED IN THE FIRST QUESTIONNAIRE AND SUMMARY OF FEED-BACK PARTICIPANTS' ASSESSEMENTS

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Policy-issue No.1.:

"Have more 'top-level administrators on the Interministerial Coordinating Commitee on Nutrition, so as to improve the efficiency of the decision-making process.

RANKINGS: 6-7-2

SCORE: 15

Summary of Comments

The majority of the panel ranked this issue as a desirable and feasible one. Practical suggestions were:

1) To encourage Committee members to initiate work on nutrition within their own departments.

2) To obtain more consistency in the group of people meeting (i.e. the same persons every time.

3) To stimulate and challange ICC members to take a more active part in presenting problems and alternative ways of approaching them.

Policy-issue No. 2.:

"Some of the Committees of the National Nutrition Council (NNC) require more professionals with a background in social sciences, to provide a more thourough understanding of the numerous factors (sociological, economic, demographic, etc.) influencing eating habits".

RANKINGS: 2-7-7
SCORE: 16

Summary of Comments

Although the great majority of the panel ranked it as 'Very Desirable' or 'Desirable', its feasibility appears problematic. About 60 percent of the panel ranked it as either 'Definitely Feasible' or Possible Feasible, but 40 percent of the respondents felt that the resolution of this policy-issue was 'Possible Unfeasible or 'Definitely Unfeasible'. This uncertainty can be summarized by three types of comments made by the participants.

1) Professionals with a background in social sciences are rare in Norway.

2) The NNC new committe of 1983 should be able to fulfill this requirement in part.

3) This issue must be taken into consideration in long-term planning because improving eating habits also involves human behaviour, social structure, etc., (in this perspective the contribution of the natural sciences alone would be insufficient).

Policy-issue No. 3.:

"Encourage certain ministries to play a greater role in the implementation of the policy".

RANKINGS: 7-4-5
SCORE: 16

Summary of Comments

Participants felt that the resolution of this policy-issue was highly desirable. However, its feasibility was not so straight-forward (about one third of the panel rated it as either 'Possibly Infeasible' or had problems in ranking their assessment).

In the opinion of many participants, this issue overlaps with policy-issue No. 1, and these should therefore be incorporated into only one policy-issue in the next questionnaire.

Policy-issue No. 4.:

"Fully integrete the NNFP into preventive medicine as a whole, and to improve the coordination between different preventive measures as a means of attaining the nutrition goals".

RANKINGS: 5-1
SCORE: 6

Summary of Comments

This issue seems very complex. Although the majority rated it 'Very Desirable' or 'Desirable', more than one third of the panel judged it as 'Undesirable' or had problems in the assessment of its desirability.

Its feasibility appears to be very problematic. The opinion of the panel is split on this point. Half of the participants ranked it as either 'Definitely Feasible' or 'Possibly Feasible'. For the other half its feasibility was not clear-cut.

Some of the comments bear witness to this lack of agreement.

- "NNFP is a part of preventive medicine and must be integrated into the strategy on how to tackle life-style problems".

- "Where is preventive medicine to be found in Norway? So, how can they be integrated"?

-"NNFP is more than preventive medicine".

-"This integration and coordination should be carried out at different levels: central and local levels".

-"Nutrition deals with more than good health (..) therefore, if integration into preventive medicine is too close, the results could be dangerous.

Policy-issue No. 5:

"Increase government spending (currently about 1M.Kr) on information work, so that institutions like the NNC can provide an effective counterbalance to the far greater output of nutritional information from the private sector".

RANKINGS: 4-4-5-5-4-1-7-5
SCORE: 35

Summary of Comments

Increased government spending on nutrition information activities has naturally been rated as 'Very Desirable' or 'Desirable'. One fifth of the panel was doubtful about its feasibility.

From the comments made, suggestions have been put forward to restructure the issue along two lines:

1) To assess the possibility of obtaining an increase in financial support from the government; and

2) To assess the best way of using such resources.

Policy-issue No. 6.:

"Improve coordination amongst institutions (e.g. the NNC, the National Association for Nutrition and Health, etc.) on nutrition education".

RANKINGS: 1
SCORE: 1

Summary of Comments

This issue was given low priority. All in all there was a positive judgement on the existing level of coordination.

This policy-issue will therefore be excluded from the next Delphi questionnaire.

Policy-issue No. 7.:

"Set up special courses in nutrition for health professionals, such as nurses, family doctors and dentists".

RANKINGS: 3-2-6-3-5
SCORE: 19

Summary of Comments

The majority of the participants considered this policy-issue both desirable and feasible.

Comments suggest that this issue should be restructured particularly as regards:

a) 'Who' should be in charge of organizing these courses.

b) The aim and content of the courses.

Some of the comments were:

- "(..) the problem is how to organize these courses and who should do it".

- "(..) this kind of nutrition course has to be action-oriented".

- "(..) there is one danger related to this issue: an increase in knowledge does not necessarily give an increase in action".

- "Many health professionals are already overloaded with work".

Policy-issue No. 8.:

"Establishing national training courses for teachers in order to provide children with nutrition instruction".

RANKINGS: 1-1-2-4-5
SCORE: 13

Summary of Comments

The panel ranked this issue as highly desirable and feasible. The majority of the comments made stressed the fact that:

1) At college level nutrition has a marginal place in the curriculum. Consequently, one has to establish first of all where nutrition can be fitted into this curriculum.

2) In the school system for children aged 7 to 16, nutrition has in theory a relatively broad space. The problem here is that the nutrition curriculum covers a wide range of subjects and nobody feels responsible for it.

Possible action seems to lie mainly in an increased effort to make nutrition instruction more coherent. That means:

a) Helping teachers to organize nutrition instruction within their own schools.

b) Providing teachers with background information on nutrition (including the practical part of it: selection of foods, preparation of meals, etc).

c) Providing teachers with educational materials on nutrition (such as books, teaching aids, posters, etc.).

It seems that consensus exists among participants as to the importance of this policy-issue. Perhaps more information would be required as regards how to resolve such an issue from an organizational point of view (e.g. responsibilities, institutions involved, content of nutrition instruction, etc.).

Policy-issue No. 9.:

"Make the teaching of nutrition a compulsory part of the curriculum in schools"

RANKINGS: 2-1
SCORE: 3

Summary of Comments

This issue overlaps with policy-issue No. 8. Participants agreed that the Norwegian school system should make more room for nutrition education.

It was felt that what really matters is not to have nutrition as a compulsory subject on the curriculum in schools, but to improve the integration of various nutrition-related subjects. The kind of comments made were as follows:

- "Even if you make nutrition a compulsory part of the curriculum, it all depends on the teachers and the way of organizing the subject".

- "There is the need, particularly at college level, for both a nutriton curriculum and adequately trained teachers".

- "Compulsion could result in resistance, and poor teaching from coerced teaching staff".

Enough information exchange has been obtained on this issue and therefore it will not be included in the next Delphi questionnaire.

Policy-issue No. 10.:

"Use more sophisticated devices (ex. by the NNC) for assessing the effectiveness of health education in reaching target groups".

RANKINGS: 3-5
SCORE: 8

Summary of Comments

This seems to be a critical policy-issue. Although the majority of the experts ranked it as either 'Very Desirable' or 'Desirable', disagreement seems to exist among the panel as regards its feasibility. This uncertainty is reflected in comments such as:

- "Sophistication does not automatically improve reliability. At present no assessment at all is made to my knowledge".

- "Very important, but it would need a lot of resources (..)".

- "So far in Norway we have seldom had to justify in detail the aims and goals of health education projects (..) in order to get money for such activities. The writing of project proposals, for example, seems to be a fairly unknown activity among nutritionists. Primarily, in my view, it is therefore not a question of sophisticated devices for evaluation, but more a question of introducing evaluation as an obligatory part of all projects".

Policy-issue No. 11.:

"Encourage research in the area of making information messages accurate and simple".

RANKINGS: 4-3-4
SCORE: 11

Summary of Comments

According to the majority of the panel this policy-issue overlaps with policy-issue No. 10. Most see the issue as 'Very Desirable' or 'Desirable'. However, there is not a widespread consensus on its feasibility. This is witnessed by comments such as:

- "(..) it needs economic resources and enough people to evaluate what has been done".

- "I feel we do not fully use all the knowledge which is gained in different institutions about this".

- "Not only research, but education of health professionals

in this area. Also, encourage contact between health professionals and professionals in the area of information and communication techniques".

Policy-issue No. 12.:

"Obtain a higher level of cooperation between the State and private industry on nutrition information".

RANKINGS: 3-3-5
SCORE: 11

Summary of Comments

This is a very complex issue. There is agreement among the panel that cooperation is desirable, but only half of the participants considered this cooperation as feasible. Some of the common comments made were:

- "We are trying, but the cost may be greater than the benefit".

- "This is a question of 'balance': there will be conflicts of interest; but 'cooperation', rather than 'confrontation' should be sought".

- "(..). It should include not only private industry, but also hotel chains, food store chains, etc.".

- "This implies that there are minor conflicts between the State and the private industry. I doubt it, but it might be possible in some areas".

The responses of the panel suggest that the issue be restructed along the following lines:

1) To explore areas where cooperation can be reached (not only with industry, but also hotels, food store chains, etc).

2) To examine possible ways of tackling areas of conflict.

Policy-issue No. 13.:

"Run special training courses in nutrition for key individuals involved in local neighbourhood activities, in order to channel information from the central to the local".

RANKINGS: 7-6
SCORE: 13

Summary of Comments

This issue seems to be quite intricate. It received priority vote from only 2 experts, but with very high scores (7-6). The majority of the panel regarded it as desirable,

although there was a minority that ranked it as 'Undesirable' or 'Very Undesirable'. One expert out of ten was not able to rank the desirability of resolving such an issue.

Disagreement exists in the assessment of its feasibility. Only half of the respondents ranked it as 'Definitely Feasible' or 'Possibly Feasible'.

Some of the comments were:

- "(..), major task: who should be responsible"?

- "This has been done to some extent. It seems to be a good idea".

- "This issue is not relevant to the Norwegian situation".

- "Yes, very important!! It should also be channelled through the local health authorities. Such courses would have to focus on other aspects in addition to nutrition:

a) How to cooperate with whom on the local level;
b) How to plan programmes;
c) How to give information; etc.

It might be an idea to have 3 levels in this information flow:

i) The State level;
ii) The 'Fylkes' (County) level;
iii) The Commune level".

Policy-issue No. 14.:

"Because agricultural goals are hardly likely to go hand in hand with health goals, it is unlikely that both can be simultaneously achieved. The Policy's goals must be made crystal clear (e.g., by means of a weighting system in order to assess agricultural and health goals)".

RANKINGS: 7-4-1
SCORE: 12

Summary of Comments

This issue seems to be one of the most controversial. Just over half the participants found it desirable; however for the great majority it was 'Possible Infeasible' or 'Definitely Infeasible'. At any rate, as some experts have voted for this issue, this should imply that there is a necessity to somehow tackle certain ambiguities present within the NNFP.

Some of the comments are shown below; they reflect the complexity of such an issue, the disagreement of opinion on it, and the necessity to restructure this issue in a more thought-provoking way.

- "(..). If agricultural production was properly controlled there would be no contradiction between health interests and agricultural ones; but this is not the case today".

- "In the long run I disagree with this statement. In the short-run it may be true".

- "I disagree with this statement. Weighting systems to assess goals in nutrition represent an over-simplification and are unsuitable".

- "To quantify the goals of agricultural and nutritional policy is hardly politically possible. An explicit weighting of the goals by the Storting is even more difficult politically. Such a process would raise and clarify too many conflicts of interests (..)".

- "This is important and especially for the agricultural area where there is great confusion among the farmers. However, I think it might be dangerous to make too close a link between these two areas, because of the conflicts between them".

- "(..) this weighting of wellbeing against livelihood - and the inter-relationships of the two - is the crux of the policy problems. If I were solely concerned with implementing the nutrition aspect of the NNFP I might prefer it if such a system were not employed!!".

Policy-issue No. 15.:

"Increase import of certain quality of agricultural products so that food of higher nutritional value may be purchased at a lower price than if produced locally".

RANKINGS: -
SCORE: 0

Summary of Comments

The overwhelming majority of the experts's assessement judged this issue as 'Undesirable' or 'Very Undesirable'; and 'Infeasible' or 'Definitely Infeasible'.

Enough information has been obtained from the comments and this issue will not be included in the next questionnaire.

Policy-issue No 16.:

"Increase agricultural research in order to improve domestic production of food".

RANKINGS: -
SCORE: 0

Summary of Comments

The panel felt that this issue was already highly considered in Norway. When it was felt that the issue implied increased agricultural research in order to improve the domestic production of foods from a quantitative point of view the issue was ranked rather unfeasible, because of the inflexibility of Norwegian agriculture.

Policy-issue No. 17.:

"Re-arrange current consumer and producer subsidies in order to achieve the policy goals outlined in Report No. 32".

RANKINGS: 3-1
SCORE: 4

Summary of Comments

This seems to be another crucial issue. The majority of the experts looked at it as desirable but not as a feasible decision.

Some of the comments made show the complexity as well as the ambiguity of this issue.

- "This has to be done constantly. World market prices play a role (..) as well as domestic products".

- "(..). I am not quite sure how much subsidies really affect consumption. It is important to know more and try new ways".

- "As far as present research shows, the nutritional composition of Norwegian diet has not been much influenced by price policy during the last 20-30 years".

- "Consumer and producer subsidies re-arranged in order to achieve policy goals of Report 32 alone would be countereffective for some of the goals of agricultural policy in the current situation; namely the income-goals. (..)".

- "If a consumer policy is - among other things - geared to discourage the population from eating something the country produces easily (e.g. butter) then there is the need either to find outside markets for that product (Norway has had enourmous difficulty in exporting its dairy products) or restrict production of that item to bring it into line with the price-led decline in consumption. This is difficult to manage politically".

The issue will be restructured according also to comments made for Policy-issues Nos. 14 and 29.

Policy-Issue No. 18.:

"Introduce better guidelines for the production and

marketing of food"

RANKINGS: 2
SCORE: 2

Summary of Comments

Participants felt that this issue overlapped with others, particularly Policy-issue No. 21. This issue will therefore be incorporated into other issues in the next questionnaire.

Policy-issue No. 19.:

"Assess availability and selection of food at local level, and improve, from a nutritional point of view, where necessary".

RANKINGS: 7
SCORE: 7

Summary of Comments

Part of the panel felt that there was room for improving the quality of foods at local level. Some participants pointed out the need for dealing with 'high-price low quality and scarcity' of certain products (e.g. vegetables and fruit) in the more isolated areas of the country.

Although the issue is refered to as desirable by the majority of the respondents, its feasibility is less clear. In fact, about one third of the panel ranked this issue either 'Possible Infeasible' or 'Definitely Infeasible'.

Policy-issue No. 20.:

"Find new strategies to capture the interest of the food industry, and to encourage it to cooperate in the achievment of the policy goals".

RANKINGS: 2
SCORE: 2

Summary of Comments

The majority assessed this issue as desirable. However, less than half the respondent judged it as 'Possibly Feasible' or 'Definitely Infeasible'.

Enough information has been obtained on this issue. This issue overlaps with policy-issue No. 12 (and partially with policy-issue No. 22) and therefore it will not be included in the next questionnaire.

Policy-issue No. 21.:

"Improve control over the activities of the food industry, in general".

RANKINGS: 4-3
SCORE: 7

Summary of Comments

This issue was ranked as 'Very Desirable' or 'Desirable' by the majority, but less than half of the panel ranked it as 'Definitely Feasible' or 'Possible Feasible'.

The comments made by the respondent group suggest that it was a rather vague issue. It will therefore be restructured in the next questionnaire.

Policy-issue No. 22.:

"Increase advertisers' awareness of the importance of informing the public".

RANKINGS: -
SCORE: 0

Summary of Comments

This issue was too vaguely stated. It will be incorporated in other issues in the next Delphi questionnaire.

Policy-issue No. 23.:

"Introduce stricter regulations governing food advertizing (in cinemas, newspapers, magazines, etc.".

RANKINGS: 3-6
SCORE 9

Summary of Comments

Over half of the panel assessed this issue as desirable, but the majority also judged it as being either 'Possibly Infeasible' or 'Definitely Infeasible'.

Some of the comments were:

- "(..). False claims are prohibited. On the whole, the food industry has been very decent in its advertizements".

- "Desirable, but how far can you go without being dictatorial? Better to increase the public understanding".

- "Important because private advertizing can use tricks that official information cannot use".

As far as this policy-issue is concerned, areas of agreement and disagreement have been identified and therefore it will

not be included in the next Delphi questionnaire.

Policy-issue No. 24.:

"Create a situation in which people are really attracted to the idea of eating more fish and potatoes, instead of meat".

RANKINGS: -
SCORE: 0

Summary of Comments

This issue was regarded by the respondents as desirable, but the majority ranked it as being 'Possible Unfeasible'.

Some of the comments were:

- "We want people to understand why and how they can eat more fish, bread, potatoes, skimmed milk, fruit and vegetables".

- "Social marketing approach!! This is where educators nutrition information organizations, etc, have to increase their capacity and knowledge".

- "(..). Frozen fish could be better marked through outlets such as freezer centres. The present alternative (processed fish in form of fish balls, soup, etc.) is not entirely desirable nutritionally".

This issue was stated too vaguely. Furthermore, it overlaps with several other policy-issue and therefore it will not be included in the next questionnaire.

Policy-issue No. 25.:

"Stimulate the participation of large institutions in providing a healthy diet".

RANKINGS: 7
SCORE: 7

Summary of Comments

There was consensus among participants as to the desirability and feasibility of this issue. According to the panel it should be easy to set up activities (e.g. directly organized by the NNC and (or) the Directorate of Health) in order to stimulate large institutions (e.g. hospitals, schools, etc.) to provide a healthy diet.

However, some of the respondents pointed out an interesting aspect indirectly connected with this policy-issue:

- "The problem cannot be solved simply with a healthy diet (e.g. in health institutions). The problem is just as much

related to:

a) the social atmosphere (or lack of such!) in which people eat;
b) individually adjusted diet;
c) size of portion; etc."

- "It depends upon what is included in 'healthy diet'. I do not think that people select their food because of its 'healthiness', or only to a small extent".

Areas of agreement have already been identified and therefore there will be no need to explore further this issue in the next questionnaire.

Policy-issue No. 26.:

"Increase financial resources and manpower in order to enable the control authorities to carry out their tasks more effectively".

RANKINGS: 1
SCORE: 1

Summary of Comments

This issue was ranked as 'Very Desirable' or 'Desirable' by the majority of the respondents. However, less than half of the participants ranked it as 'Definitely Feasible' or 'Possible Feasible'.

The comments made suggested that it overlaps with policy-issue No.21. Therefore it will be incorporated in the restructured policy-issue No. 21, in the next questionnaire.

Policy-issue No. 27.:

"Increase the selection of low fat products and improve their marketing".

RANKINGS: 6-3-2
SCORE: 11

Summary of Comments

This appears to be a very crucial issue. There was large agreement among the participants as regards its desirability, but disagreement as to its feasibility. Less than half the respondents, in fact, ranked it as either 'Definitely Feasible' or 'Possible Feasible'.

Among other things it was noted that:

- "Less fat in the diet does not solve all the problems".

- "Not only low-fat products. Also high fibre content, etc.. This could be done through the local food stores".

- "(..). Again, it is a matter of the weighting of different components of the policy".

This issue will be restructured in the next Delphi questionnaire.

Policy-issue No. 28.:

"Carry out further research into the effect of the policy in determining social change"

RANKINGS: 2-1
SCORE: 3

Summary of Comments

Consensus on its desirability; however the panel is devided on feasibility. All in all the respondents gave low priority to this issue.

Some of the comments were:

- "(..). It would need economic resources and well-trained researchers".

- "Food habits are a result of people's living. This connection has to be studied thoroughly to find useful measures in food policy".

Furthermore, it was observed by many that this issue overlaps with policy-issues Nos. 2, 10 and 30. This issue will not be included in the next questionnaire (part of it will be incorporated in the restructured policy-issue No. 2.

Policy-issue No. 29.:

"The desire to stimulate domestic production and the concern to protect farming and fishing communities are reflected in the pattern of subsidies. However, the government could do more to achieve the goals of the NNFP and to help the lower and middle income groups by including some items which are, at the present, not on the list of subsidized foods, and by using a different weighting for some of the items which are on the list".

RANKINGS: 6-7-1
SCORE: 14

Summary of Comments

This seems to be a very complex issue. There is disagreement among the participants both as regards its desirability and its feasibility.

Some of the comments below witness this complexity and the difficulty of pursuing health goals, agricultural goals,

economic goals, etc., at the same time.

- "Subsidies are a complicated area and serve several purposes. The idea of them serving nutrition goals is rather new and, therefore, this idea might be difficult in practice".

- "(..). I feel we do not know enough about the connection between consumption and subsidizing. Consumption is not only a question of food price".

- "There are serious budgetary constraints to increasing subsidies, and even maintaining them, as in the case of the meat and flower. It is, however, possibile to use a different weighting to some extent without serious effect on the achievement of the agricultural policy goals (e.g. by lower relative prices on skimmed milk".

- "This could be desirable, but not very realistic".

- "I think more research is needed before one can agree upon this. Prices will only influence food consumption to a certain extent (so far unknown)".

This policy-issue needs to be restructured in a more thought-provoking way.

Policy-issue No. 30.:

"Evaluation has so far been a neglected area in the development of the policy. It will be important, therefore, to give more attention and financial support to improve the capability of evaluating the outcomes of the policy".

RANKINGS: 7-6-3-1-6-5-5-7
SCORE: 40

Summary of Comments

This is a crucial issue. It scored the highest preliminary vote. The large majority ranked it as both desirable and feasible. These judgements would imply therefore that 'something could be done' or 'must be done' to this purpose.

The respondents emphasized the importance of this issue with comments such as:

- "Priority vote *7* because of the situation in Norway today; (we have had policy decisions for 8 years now). Evaluation not only for the NNFP".

- "Yes!! But likewise it is essential to create among nutrition professionals a better understanding of the need for evaluation. It is important, in my view, to regard the question of evaluation in the light of such facts as:

a) Very few nutrition (or other health) professionals have until recently had any training in project methodology and

evaluation;
b) When money has been granted to project activities in this field, the need for evaluation has until lately not been heavily stressed;
c) Health professionals have not in nationalized health systems had to think in cost benefit terms, the way commercial interests have had to".

- "(..). Evaluation should focus not only on what has (or has not) been done; but also on hypothetical alternative policies (..)".

- "I think there is a clear case for a cross-disciplinary project (economics, social survey-workers, etc.) to be set up and be given adequate funding".

This issue overlaps with policy-issues Nos. 28, 32 and others. It will be therefore restructured in the next questionnaire.

Policy-issues No.31.:

"Introduce a specific research-project to assess the degree of evidence that the two main strategies used to implement the policy: (i) Price Policies; and (ii) Consumer Education, really influence consumption patterns."

RANKINGS: 5-1-2-6
SCORE: 14

Summary of Comments

Participants agreed in referring to this issue as desirable. However, there is no consensus within the panel as regards its feasibility. In fact, only half of the respondents considered this issue as 'Definitely Feasible' or 'Possibly Feasible'. Some of the comments were:

- "(..). I am not so sure that the two main instruments to implement the policy are 'price policies' and 'consumer education'. A research-project must go wider".

- "I do not agree with the statement. Many means of implementing the policy are suggested in Report 32".

The above (and others) comments suggest that this policy-issue should be restructured in the next questionnaire. It should be taken into consideration also that this issue overlaps with other policy-issues (e.g. No. 15, 17, and 30).

Policy-issue No. 32.:

"It is generally assumed that everyone in Norway is rich enough to buy the necessities of life. However, more information on price, income and demand elasticity is needed

in order to better evaluate the consequences of the price policy measures of the NNFP".

RANKINGS: 3
SCORE: 3

Summary of Comments

Agreement has been reached among participants who ranked this issue as desirable and 'Definitely Feasible' or 'Possible Feasible'.

Comments suggest that this issue overlaps with policy-issue No. 31. therefore, it will be incorporated into the restructured policy-issue No. 31, in the next questionnaire.

Policy-issue No. 33.:

"Increase research budget on nutrition to discover new medical links between diet and health".

RANKINGS: 4-1-4
SCORE: 9

Summary of Comments

The majority of the panel judged this issue as both desirable and feasible. However, certain comments (see below) would suggest that reasearch-projects in this area should be directed towards action-oriented research.

- "(..), perhaps there is (..) a need to discuss more thouroughly a distribution-key that favours action-oriented research projects".

- "I think this should not be included in food policy today. The gap between knowledge and practice is already wide enough".

This issue will be restructured in the next questionnaire.

Policy-issue No. 34.:

"Increase financial support for specific research project, dealing with 'high incidence' health problem which are probably caused by unhealthy diets (e.g., cardiovascular diseases, constipation, tooth decay, cancer, etc.)".

RANKINGS: -
SCORE: 0

Summary of Comments

According to the panel this issue overlaps with policy-issue No. 33. It will be therefore incorporated in the re-structured policy-issue No. 33.

Policy-issue No. 35.:

"Set up a specific research-project on the dietary patterns of the public in general, as well as of selected groups".

RANKINGS: 2-2
SCORE: 4

Summary of Comments

The majority of the participants ranked this issue both as desirable and as feasible. Some of the comments were:

- "This should definitely be done".

- "To increase the usefulness of such projects, it would have to be closely related to a follow-up intervention programme. So far, most of the research in this area has been extremely (and surprisingly) devoid of description regarding specific aims and goals".

- "Continuation and extention of the work carried out at the Institute of Dietary Research at the University of Oslo (..)".

- "Simply not enough is known about Norwegian consumption patterns. There is the need for a 'National Food Survey' along the British lines (and even that can be improved). This kind of project would also systematise the whole data base".

This issue overlaps with policy-issue No. 37, and therefore will be porated in this last policy-issue in the next questionnaire.

Policy-issue No. 36.:

"Finance and design controlled intervention studies (like the Oslo Study) in order to identify 'groups at risk' and offer appropriate dietary advice".

RANKINGS: 6-4
SCORE 10

Summary of Comments

There seems to be a broad agreement within the panel in ranking this issue as both desirable and feasible. Some of the comments were:

- "There will be more of these kind of studies".

- "I doubt the cost-effectiveness of this approach (except for research purposes)".

- "This kind of study seems have a general motivating and

stimulating effect on people's interest in nutrition-related matters".

Enough information has been obtained on this policy-issue and therefore it will not be included in the next questionnaire.

Policy-issue No. 37.:

"Improve the current monitoring of food consumption patterns so that trends in development may be assessed. (e.g., by producing data on real consumption by households and by individuals, and by establishing a National Food Survey so researchers can work with more direct information".

RANKINGS: 5-6-5-5-6
SCORE: 27

Summary of Comments

Consensus exists among experts on the high desirability and feasibility of this issue. The high preliminary vote given shows the importance of this issue. This policy-issue will be therefore included in the next Delphi questionnaire).

****
- SUMMARY OF PRELIMINARY VOTES -
****

Preliminary Hierarchy	Policy Issue No.	Preliminary Vote
1st	30	40
2nd	5	35
3rd	37	27
4th	7	19
5th-6th	2;3	16
7th	1	15
8th-9th	29;31	14
10th-11th	8;13	13

12th	14	12
13th-15th	11;12;27	11
16th	36	10
17th-18th	23;33	9
19th	10	8
20th-22nd	19;21;25	7
23rd	4	6
24th-25th	17;35	4
26th-28th	5;28;32	3
29th-30th	18;20	2
31st-32nd	6;26	1
33rd-37th	15;16;22;24;25	0

FINAL DELPHI QUESTIONNAIRE

The present is the final Delphi questionnaire. As mentioned in the first questionnaire, the aim of the Delphi exercise is to explore and assess various policy issues involved in pursuing an efficient and effective nutrition and food policy [NNFP] in Norway.
The Delphi exercise sets out to provide an organized method for correlating views and information pertaining to a specific policy area and for allowing the respondents the opportunity to react and assess differing viewpoints.

In answering this final Delphi questionnaire you are strongly adviced to refer to the outcome of the first one

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In this final Delphi questionnaire you are asked to do 4 things:

1] REVIEW all issues on the questionnaire as distilled from the previous questionnaire. MAKE COMMENTS (or give examples) on any issues you wish.

Feel free to make clarifications, argue in favour of or against issues. Please feel free to add any issue you think relevant in pursuing the policy.

2] RATE the 'Importance'; 'Technical Feasibility'; 'Political Feasibility'; 'Likelihood of Occurence'; and the 'Impact on the Policy' of each issue according to the rating scales inclosed.

3] SELECT the 5 issues you feel are the most important for improving the efficiency and effectiveness of the policy. Assign a value of "5" to the most important. Assign a value of "4" to the next most important, and so on, until the fifth issue (the least important of the five) is assigned a value of "1".

4] RETURN your response by ..

****

NB.: The policy-issues in the final Delphi questionnaire are listed hierarchically according to their score in the previous questionnaire.

****

INSTRUCTIONS FOR ANSWERING THE SECOND DELPHI QUESTIONNAIRE

****

In your comments you are free to make any judgement you think appropriate.

In order to increase the homogeneity of the judgemental task some key-words are suggested below.

CERTAIN:

- Low risk of being wrong.
- Decision based upon this will not being wrong because of this 'fact'.
- Most inferences drawn from this will be true.

RELIABLE:

- Slight risk of being wrong.
- Willingness to make a decision based upon this.
- Assuminig this to be true but recognizing the possibility of small margin of error.

UNRELIABLE:

- Great risk of being wrong.
- Worthless as a decision basis.

RISKY:

- Substantial risk of being wrong.
- Not willing to make a decision based upon this alone.
- Many incorrect inferences can be drawn.

NOT PERTINENT:

- Even if assertion is certain or unreliable it has no significance for the basic issue.

NO JUDGEMENT:

- No knowledge to judge this issue.

Rating Scale for IMPORTANCE

---

[1] VERY IMPORTANT

-- A most relevant point
-- First order priority
-- Has direct bearing on major issues
-- Must be resolved, dealt with or treated

---

[2] IMPORTANT

-- Is a relevant issue
-- Second order priority
-- Significant impact but not until other issues are treated
-- Does not have to be fully resolved

---

[3] MODERATELY IMPORTANT

-- May be a relevant issue
-- Third order priority
-- May have impact
-- May be a determinig factor to major issues

---

[4] UNIMPORTANT

-- Is an irrelevant issue
-- Low priority
-- Has (will have) little impact
-- Not a determinig factor to major issues

---

[5] MOST UNIMPORTANT

-- No priority
-- No relevance
-- No measurable effect
-- Should be dropped as an issue to consider

Rating Scale for TECHNICAL FEASIBILITY

---

[1] DEFINITELY FEASIBLE

-- Can be implemented
-- No further research and development required
-- Necessary resources (financial, monpower, etc.) are presently available

.....

[2] PROBABLY FEASIBLE

-- Some indication that this can be implemented
-- Some research and development still required
-- Available resources would have to be supplemented

.....

[3] MAY or MAY NOT BE IMPLEMENTED

-- Contradictory evidence that this can be implemented
-- Indeterminable research and development effort needed (existing resources may be inadequate)
-- Increase in available resources would be needed

.....

[4] PROBABLY INFEASIBLE

-- Some indication that this cannot be implemented
-- Major research and development effort needed (existing resources are inadequate)
-- Large scale increase in available resources would be needed

.....

[5] DEFINITELY INFEASIBLE

-- Cannot be implemented
-- Basic research needed
-- Unprecedent allocation of resources would be needed

Rating Scale for POLITICAL FEASIBILITY

---

[1] DEFINITELY FEASIBLE

-- No major political obstacles
-- Will be acceptable to the general public

.....

[2] PROBABLY FEASIBLE

-- Some minor political obstacles
-- Further consideration may have to be given to public reaction, although some indication exists that this may be acceptable

.....

[3] MAY or MAY NOT BE IMPLEMENTED

-- Political obstacles
-- Some indication that this may not be acceptable to a large proportion of the general public

.....

[4] PROBABLY INFEASIBLE

-- Major political obstacles
-- Not acceptable to a large proportion of the general public

.....

[5] DEFINITELY INFEASIBLE

-- Politically unacceptable
-- Completely unacceptable to the general public

We are aware that the NNFP is charaterized by an attempt to take policy measures with an inter-sectorial approach. Thus, it may seem incorrect to estimate the likelihood of occurrence of each individual event in isolation from the others.

Nevertheless your subjective judgement on the probability of occurrence of a specific event (e.g. the probability of resolving a given policy-issue) is of great importance to our analysis.

The above considerations also apply to your personal opinion on the possible impact of the resolution of a particular policy-issue on the development of the NNFP.

The following scales are designed to guide your subjective judgements:

LIKELIHOOD OF OCCURRENCE (in the short-run)

---

[1] Very Probable

100 - 80 per cent of probability of occurence

.....

[2] Probable

79 - 60 per cent of probability of occurrence

.....

[3] Either Way

59 - 40 per cent of probability of occurrence

.....

[4] Improbable

39 - 20 per cent of probability of occurrence

.....

[5] Very Improbable

19 - 0 per cent of probability of occurrence

.....

[6] No Judgement

IMPACT on the Development of the NNFP

---

[1] Strong

-- Will have a positive effect and little or no negative effect on the development of the NNFP

-- Essential for the achievement of the policy goals (as stated in Report No. 32)

.....

[2] Moderate

-- Will have a moderate effect on the development of the NNFP

-- May be an important, though not a determining factor in the achievement of the policy goals

.....

[3] Slight or None

-- Will have a little effect on the development of the NNFP

-- Will have a marginal role in the achievement of the policy goals

.....

[4] No Judgement

Format of the Final Delphi Questionnaire

Pr. Vote	Policy-Issue Description	COMMENTS	Issue Characteristics IM	TF	PF	LO	Imp
--	P-I No.1.	.....	[1]	[1]	[1]	[1]	[1]
	.....	.....	[2]	[2]	[2]	[2]	[2]
		...	[3]	[3]	[3]	[3]	[3]
			[4]	[4]	[4]	[4]	[4]
			[5]	[5]	[5]	[5]	
						[6]	

Pr.= Priority
IM = Importance
TF & PF = Technical Feasibility & Political Feasibility
LO = Likelihood od Occurrence
Imp = Impact

Policy-issue No. 30.:

"Evaluation has so far been a neglected area in the development of the policy. It will be important, therefore to give more attention and financial support to improve the capability of evaluating the outcomes of the policy"

To resolve this issue the suggestions distilled from the first Delphi questionnaire seem to be:

a) Set up specific training activities for nutrition and other health professionals in project methodology and evaluation to enable them to get a better understanding of the need for planning and evaluation.

b) Set up, and give adequate funding, a cross-disciplinary project to evaluate the efficiency and effectiveness of the present NNFP's measures.

c) Carry out specific research studies in order to assess the desirability and feasibility of hypothetical alternative policies for reaching the NNFP's goals and improving the rationality of the current decision-making process.

Final Ranking: 2;2;3;3;3;3;3;2;5;2
Score: 28

Summary of Assessment

Participants felt that the resolution of this policy-issue was both desirable (i.e. being important and having a positive impact on the development of the NNFP) and politically and technically feasible. Some of the comments, however, pointed to the complex nature of evaluation within policy development.

"I think this is important but it depends upon the willingness to use the information one gets. Evaluation 'per se' does not change anything (..)."

"(..) evaluation is often very difficult and can be costly. Expected benefits should be larger than expected costs when one decides to start a specific evaluation project (..)."

Other comments trew light on the direction that evaluation should take within the NNFP:

"In a small country it need not be necessary to teach evaluation methodology to all nutrition/health workers. A centralized project, able to monitor nationwide developments, initiate sample surveys and advise workers in problematic fields, should suffice. There would of course be considerable interaction between the centralized evaluation team and workers in the field, since the latter are the appropriate personnel for administering questionnaires, collecting and collating results and returning them to the central project team."

"It is important that social sciences should be involved in this evaluation, which should be broader than a mere examination of the effects of various nutrition campaigns. The evaluation must focus upon the effect on people's nutrition of various political decisions in different areas (e.g. economic, agricultural, and so on). (..) Impact '[4]' because it depends on the political willingness to use the information obtained."

"(..) as the situation is constantly changing, it is extremely difficult to predict the results of hypothetical alternative policies (..) and at the end might be a question of cost-benefit. (..). Interdisciplinary projects are most important, though it might be difficult for different groups to agree on what to evaluate and how to use the results because of conflicting interests."

"I agree that this is important and feasible but to make it effective we need: (a) research into the relationship between food habits and health; and (b) better statistics on food consumption."

In conclusion, this policy-issue appears to be a very central one for the future development of the NNFP; it was, in fact, commonly voted as a priority issue.

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Policy-issue No. 5.:

"Increase government spending (currently about 1M.Kr) on information work, so that institutions like the National Nutrition Council can provide an effective counterbalance to the far greater output of nutritional information from the private sector".

To resolve this policy-issue the comments made in the first Delphi questionnaire suggest that information information must be obtained from the experts-panel on:

a) An assessment of the possibility of receiving increased financial support from the government.

b) An assessment of actions made possible as a result of increased financial support.

(Please identify some activities which you feel are very important here).

Final Rankings: 5;2;1;1;3;4;5;1;4
Score: 26

Summary of Assessment

The majority of the Delphi panel rated '[2]' the political and technical feasibility of resolving this policy-issue,

and '[3]' its likelihood of occurence. Respondents were aware of the complexity of the issue, which is reflected in comments such as:

"I find it difficult to give a judgement. It might be better to impose stricter controls on advertising than to rely on more information. However, in a society which is based on consumption and a free (though slightly regulated) market) there is a limit to what can be done. There is also the risk that information will probably reach those who need it least. On the other hand people need sound information in order to better select food in the market. (..). In conclusion this is a 'risky' issue."

"'Risky'. It would be more important to utilize existing resources more professionally, specifically directing them towards those groups of the population who need more advice and action."

"Information is important, but probably less important than price policy. (..). We need much more knowledge on methods to be used in this area."

"If the NNC increases the number of informative messages industry will hit back. It is therefore important for the NNC to put forward a good image so - even if it advertises less - its messages can be taken more seriously and effectively than those issued by private industry."

"It is important to give information in the form of courses and teaching materials to local groups of health personnel, teachers and politicians, especially after the new health plan for the 80's."

"(..). Training activities for nutritionists and health professionals is only a small part of the parcel. Agriculture professionals, business people, and others, need to know more about nutrition. (..)."

"Given some of the inherent conflicts in the NNFP, it is probably true to say that the safest route to dietary change is via a market-led change in buying habits. For this to happen the consumer must receive and accept certain dietaty messages. There seems to be evidence that, since the diet/health messages began to be put across, there is some movement of perceptions and buying habits - if only small at present. I see greater spending power of the NNC as a key factor in speeding up acceptance of the message."

"As far as 5(b) is concened, the result of increased financial support could help to implement evaluation and improve information aids (e.g. slides series, ready-made lectures, and so forth)."

****

Policy-issue No. 37.:

"Improve the current monitoring of food consumption patterns

so that trends in development may be assessed. (e.g. by producing data on real consumption by households and by individuals, and by establishing a National Food Survey so researchers can work with more direct information".

To resolve this issue suggestions distilled from the previous Delphi questionnaire are:

a) Set up a 'National Food Survey';
b) Set up specific follow-up intervention programmes to improve the monitoring and evaluation of the various activities stemming from given measures connected with the NNFP.

The potential benefits from such a solution have been identify by the participants as follows:

i) It would systematise the whole data base.

ii) It would make it easier to obtain information (and carry out specific research-projects) on the dietary patterns of the public in general (as well as of selected groups).

Final Rankings: 4;3;4;5;4;4;5;4;3;5
Score: 41

Summary of Assessment

This policy-issue was considered a key issue within the development of the NNFP. The great majority of the participants rated it as being 'very important'; technically and politically 'probably feasible'; 'likelihood of occurrence was rated '[2]'; and having a potentially rather strong impact. The comments can be differentiated between those related to the practical resolution of the issue and those related to the uneasy task of interpreting food consumption patterns and its impact on the NNFP strategy. Some of this comments were:

"(..). It is very important to have such data. However, all available data on nutritional status in affluent countries are difficult to interpret."

"'Risky'. Most important would be to develop indicators for the most relevant food groups - and to follow such indicators (and changes) within those groups of the population that seem to have the greatest health and nutrition problems. We still have to identify such groups (..). 37(a) would probably require too many resources which will not be available in the near future; 37(b) would be preferable."

"It is difficult to put a 'desirability' rating on this one. I believe the success of the health lobby depends upon its being able to put across simple, clear messages which are practical (i.e. the individual knows what to do, how to do it, (..) and the 'how' is easy). At the same time, the

government should not (consciously or unintentionally) undermine the health message by putting out contradictory messages implicit in its pricing policies. The values of a National Food Survey are positive and negative. Positive in that it helps nutrition workers focus on the adjustments which are desirable, given the recommended daily requirements set out by the NNC and what people are thought to eat. Negative, in that it is difficult for the nutrition lobby to claim 'infallibility' or credibility in the absence of accurate knowledge of what people eat. (..)."

"I believe this is necessary for both policy development and evaluation; (..) data from this work will be basic for information and teaching on food and nutrition matters."

"Research along these lines has been run for many years by the Central Bureau of Statistics and the Institute of Dietary Research at the University of Oslo. Improving the methods would be a high priority."

"As regards 37(b) such programmes should be set up, but I do not think one should have any illusions regarding their practical impact during the first years. This is a very complex policy area."

"The surveys curried out by the Central Bureau of Statistics could be more exploited; one should not waste resources on an indipendent large-scale survey. (..). For example, we need to improve the monitoring of yearly fish consumption."

"(..). Technical feasibility '[2]': the people and the skills are available so that 'no further research and development required'. However, the funds and the location for such a project are more problematical than the phrase 'available resources would have to be supplemented' implies. This would mean a substantial financial commitment."

"(..). Likelihood of occurrence '[2]' (i.e. 'Probable' given a 'push' from outside). Politicians unlikely to set up a National Food Survey spontaneously. Even though its desirability has been canvassed, I do not feel the health lobby has put the case for a NFS forcefully enough.

****

Policy-issue No. 7.:

"Set up specific courses in Nutrition for health professionals such as nurses, family doctors and dentists."

To resolve this issue the comments made in the previous questionnaire imply it is vital to obtain further information on:

a) The aims and contents of such courses; and

b) to specify 'who' should be in charge for organizing and running these courses.

[Please identify and comment on the way(s) in which you would like to see this issue resolved].

—

Final Rankings: 4;2;3
Score: 9

Although there was agreement among participants in rating this issue as 'important'; technically and politically 'probably feasible'; likelihood of occurrence and impact '[2]' respectively, there was no consensus on the content of the proposed courses. The following comments reflect this lack of agreement:

"The courses' aims should be decided by the NNC and organized by the University and/or the School od Nursing, depending on the type of course."

"(..) these courses should be organized by the Health Authorities in each province. (..)."

"(..). I feel that it might be better to include nutrition in the formal training in already existing courses for health professionals (..)."

"(..). Actually, I think nutrition in many ways has been too closely linked to health. Such courses should include cultural aspects of nutrition and they should be very practical. Social sciences should support (or indeed lead) such courses. It is important to link food to the way in which people live and therefore give information from this point of view."

"(..). Under 'technical feasibility' I have scored '[2]', which is what I estimate the matter to rate as far as the public and politicians are concerned. However, 'politics' also encompasses 'university politics' and the politics of the medical profession in these spheres, here I would give a technical feasibility assessment rating of '[3]' or '[4]'. I consider the very hierarchical and conservative Norwegian medical academic community to be an obstacle here. Nutrition/preventive medicine must be inserted into the curriculum via the most authoritative persons in the academic/scientific sphere. Perhaps the best way is for the government to create a Chair of Preventive Medicine expanded to take on board the arguments of the NNFP."

****

Policy-issue No. 2.:

"Some of the Committees of the NNC require more professionals with a background in social sciences, to provide a more thourough understanding of the numerous factors (sociological, economic, demographic, etc.) influencing eating habits".

Two possible solutions seem to emerge from the previous questionnaire.

a) One of the NNC new sub-committes (of 1983) should be able to fulfill this requirement in part.

b) To involve and train more professionals with a background in social sciences (they are, at the present, rather rare in Norway).

Final Rankings: 5;2;4
Score: 11

Summary of Assessment

This was one of the policy-issues where rating of importance, feasibility, likelihood of occurrence, and impact proved to be very uneven. Although its importance and impact were rated quite high by the majority, a small minority actually considered it as being 'most unimportant', and impact 'slight or none'. Although politically feasible, its technical feasibility was rated by the great majority with '[2]' or '[3]'; and its likelihood of occurrence with '[4]' or '[3]'. The respondents who made comments tended to strongly support its resolution with comments such as:

"Certain. (..). The NNC should give advice to the officials, and to do this they must have more insight in society, how people live and the factors influencing their lifestyle. One must bear in mind that to give advice on nutrition one requires more than nutritional knowledge."

"(..) the impact depends on how strong influence this new sub-committee may have on the NNC. (..) not necessary with a whole committee; NNC can call on professionals in social sciences on ad hoc basis."

"No firm views. Good work in this field can be (and has been) done by single individuals (e.g. J. Aasness) working in the social economic field. The problem is to get the conclusions of such workers taken up by the politicians."

****

Policy-issue No. 3.:

"Encourage certain ministries to play a greater role in the implementation of the policy".

To resolve this issue the following suggestions have been distilled from the comments made in the previous Delphi questionnaire.

a) Have more 'top-level' administrators on the Interministerial Coordinating Committee (ICC) on nutrition, and ensure the stability of the meetings (i.e. the same

person each time).

b) Stimulate and challange ICC members to take a more active part in nutrition-related questions within their own departments.

c) Involve ministries in a practical way, (e.g. getting assurances of real budget committments on a relatively permanent basis).

d) Each ministry's role would also have to be clearly specified and discussed as regards the NNFP's goals.

[Please give your personal opinion on the real, or potential, obstacles posed by certain ministries which may see their interests at odds with the goals of the NNFP].

Final Rankings: 5;3;1;4
Score: 13

Summary of Assessment

Participants felt that the resolution of this policy-issue was important and could have a positive impact on the NNFP. However, as in the first Delphi questionnaire, its political feasibility and likelihood of occurrence were not so straightfoward (one third of the panel rated '[3]' its political feasibility). The great majority of the participants rated the likelihood of resolving the issue as being '[3]' or '[4]'. Many comments pointed out the existence of conflicts among the various Ministries involved in the NNFP.

"(..). Unfortunately, attendance is subject to other matters of priority on hand and time available to spend on the meeting. (..). There are obvious conflicts between departments (e.g. industry and health)."

"This is of major importance. However, there are many conflicts involved, especially between the departments of agriculture and health. Also, interest in nutrition is low in many departments. For example, the Dept. of Fisheries seems to be more concerned with exports, or fisheries boundaries, and the industry is more concerned with job opportunities than with the sort of food produced. Nevertheless. I think it is important to face these conflicts instead of hiding them, as is often the case today.

Other comments pointed out the desirability of different ways of resolving the issue:

"(..) 3(a) would be of great importance; 3(b) would be very important but difficult to concretize; 3(c) almost impossible."

"(..). 3(b) and (d) are of special importance."

****

Policy-issue No. 29.:

"The desire to stimulate domestic production and the concern to protect farming and fishing communities are reflected in the pattern of subsidies. However, the government could do more to achieve the goals of the NNFP and to help the lower and middle income groups by including some items which are, at the present, not on the list of subsidised foods, and by using a different weighting for some of the items which are on the list".

As regards this issue very few solutions seem to be feasible in the Norwegian context. Some pre-requisites and possible courses of action to resolve this issue have been identified as:

a) Subsidies represent a complicated policy area in Norway; it would be necessary to carry out more analyses of the short-term and long-term effects of present subsidies. (This leads to Policy-issues Nos 30 and 31).

b) Throughly analyse present budgetary constraints in order to assist decision-making in this field.

c) Analyse whether it would be possible to use a different weighting to establish subsidies, without seriously affecting the achievement of the agricultural goals.

Rankings: 1
Score: 1

Summary of Assessment

In spite of the fact that it was given low votes, this policy-issue appears to be crucial in the light of the comments made by the respondents. Its complexity is well expressed by comments such as:

(..). The subsidies represent a hidden message from the government about what it regards as important. Given the difficulties perhaps all we can hope for is the elimination of any glaring inconsistency between the pricing of a particular food item and its 'health ranking'."

"(..). Impact '[1]' because (..) vital for achievement of the health goals. Conflicts, of course, with the food production goals. So, difficult to rank as far as the whole NNFP is concerned."

"It is not easy to answer. It covers so many parts of the NNFP. (..). 29(a) seems interesting."

The importance of pricing policy in influencing food consumption was not entirely agreed upon within the panel:

"(..). I think prices play a minor role for many people when they select food. It might be that 'exchangeable' food items could be influenced by price."

"(..) I believe that prices are important in food consumption."

The resolution of this policy-issue was considered to be important and to have a strong impact on the NNFP. The feasibility of the resolution of this issue was largely rated '[3]' both technically and politically, with no agreement on its likelihood of occurrence.

****

Policy-issue No. 31.:

"Introduce a specific research project to assess the degree of evidence that two of the major tools to implement the policy: (i) Price Policies; and (ii) Consumer education, really influence consumption patterns."

In order to reduce the overlapping with other policy-issues, the respondent is asked to react to comments made mainly on the effect of 'Price Policies' as regards the NNFP's goals. The following suggestions have been derived from the previous Delphi questionnaire:

a) Concentrate research on statistical analysis of factors influencing food consumption in relation to nutritional problems (focusing particularly on price and income effects.

b) Set up a research project of long date. This would require cooperation between different types of experts (nutritional experts, statisticians, econometricians, sociologists, etc.). The project would aim both at the short-term work (e.g. estimating demand elasticities by standard methods) and long-term work (on theory, model building and methods).

c) A possible centre for such research (see point b)) could be the Institute of Dietary Research at Oslo University. (In this case the present staff must be considerably increased with more weigh on statistics and possibly other social sciences professionals).

Final Rankings: 2;3;4;5
Score: 14

Summary of Assessment

This is an important policy-issue and was generally rated '[1]' for both importance and impact. Its resolution was assessed as being fairly feasible both politically and technically (although less feasible from a technical point of view than a political one; in fact, for more than one third of the respondents its technical feasibility was '[3]'). Some of the comments were:

"Clearly, if price policy and education do not influence consumption patterns, then the NNFP is so much wasted effort. I think there is already abundant evidence that subsidies have an effect - this is especially seen in the case of certain price-inelastic commodities (pork, for instance, is a 'festival' food (e.g. at Christmas people must have it regardless of its price), there is even an effect on relatively eleastic items such as bread (albeit, brown bread). Therefore, I think although it is desirable to know exactly how subsidies work and who is affected by them and in what way, it is not essential to the success of the NNFP. (Actually, the proposal smells slightly of 'lets make some more employment opportunities for academics')."

"This is close to my heart! But it is not easy to interpret such data, because there will always be many factors which influence consumption. (..)."

Other comments were mainly dealt with practical ways of resolving the policy-issue (no agreement was reached on 31(c)):

"As regards 31(c) many of the experts would be available if work were done in conjunction with the Central Bureau of Statistics."

"(..). 31(a) could be valuable; 31(b) very interesting. I think that such an analysis is essential to get knowledge on how to fulfill nutritional goals; 31(c) so far, the work of this Institute is not of the kind I would consider valuable. (..)."

"Certain. Both 31(a) and (b) should be implemented. We have not yet seriously discussed possible ways and methods of evaluating the effect of price policy measures on the consumption patterns of the various consumer groups. Educational programmes have been evaluated in a few cases, but more research is needed. As regards (c) staff could be supplied by the Institute of Preventive Medicine which has been involved in the evaluation of nutrition information."

****

Policy-issue No. 13.:

"Run special training courses in nutrition for key individuals involved in the local neighbourhood activities, in order to channel information from the central to the local".

To resolve this issue it is necessary to obtain further information on the following topics:

- Who should be responsible for the overall organization of such courses?

- How to cooperate with whom at the local level?

- How to plan these programmes and what kind of information should be given?

A practical proposal derived from the comments, of the first Delphi questionnaire, would suggest the need for 3 levels in such an information flow:

(i) the State level; (ii) the Regional level; and (iii) the Local level.

[Please feel free to comment on each aspect of this issue. Add any proposal(s) you feel relevant to this issue. Identification of the pros and cons associated with proposals will be of great help in our analysis].

Final Rankings: 5;2
Score: 7

Summary of Assessment

The rating of the importance and impact of this issue varied substantially. For example, over one third of the respondents considered the issue as being 'moderately important' (the rest 'important' or 'very important'); its potential impact was judged 'slight or none' by about one third of the Delphi panel. The resolution of the policy-issue was assessed as feasible both technically and politically. Those who gave a negative assessment regarding the importance and impact of the issue unfortunately did not support their judgement with detailed comments. Some of the comments were:

"(..). I rate political feasibility '[1]' because I believe it is not a matter which greatly concerns the public (..) (i.e. in terms of being 'acceptable'). A matter for key individuals to decide whether they want to take advantage of training offered - or for local political bodies to nominate a representative to be trained. What is chiefly needed is a willingness to act as an agency for the increasingly good material from the NNC and other organizations."

"(..). The programme must be planned according to the needs of the participants (e.g. nurses and a kindergarten staff do not necessarily need the same information."

"Risky. (..) such training has to take account of the specific problems existing in the area (e.g. availability of recommended foods, prices, local health problems related to nutrition, living conditions and the practical possibility of following the nutrition recommendations."

As regards the responsibility for the organization of these training courses, the participants had some difficulties in putting forward proposals:

"I do not know who should be in charge of the courses' organization. I am especially afraid that this would be focussing mainly (or only) on women, which I cannot endorse.

(..). The importance of the course depends on its aims and organization."

(..). Responsibility for the course organization should be given to local consumer groups."

"I do not see why anyone in particular should be responsible for the overall organization. Let the State encourage the regional and local authorities by highlighting important issues (..). At regional and local levels people will decide with whom to cooperate (e.g. health authorities and voluntary organizations)."

"The provincial authorities should organize courses for people at local level. These authorities may be the health, school or consumer authorities. (..). the key individuals at local level are health professionals, teachers, housewifes may also be very valuable participants. The cost of the programme should be covered by the government."

****

Policy-issue No. 14.:

"Because argicultural goals are hardly likely to go hand in hand with health goals, it is unlikely that both can be simultaneusly achieved. Efforts should be made to avoid ambiguity between health and agricultural goals".

As reported in the feed-back information of the first questionnaire, this policy-issue seems to be one of the most controversial ones.

We would appreciate if in your comments you would give:

a) Your opinion on the present level of integration between agricultural and health goals.

b) Your assessment of the possibility of pursuing this integration of goals taking into consideration the relative inflexibility regarding alternative production in the Norwegian agricultural system.

c) Your identification of areas where convergency of interests between the agricultural and health sector is feasible in the near future.

d) Your judgement on the possibility that the Norwegian government can commit itself wholeheartedly to the pursuit of the nutrition and health goals without rethinking its entire strategy for the rural sector.

Final Rankings: --
Score: 0

Summary of Assessment

Although this policy-issue was not selected as being among the most important within the NNFP, the assessment of its political feasibility (for the great majority the resolution of the issue was either rated '[3]' or '[4]') and the comments made revealed the complex nature of the issue.

"I do not see any clear way out of this impasse. Merely to 'raise and clarify' the conflicts of interests is a political hot potato. Hence my remark on policy-issue No. 5, that it is best left to market forces - if, that is, the nutrition/health message is allowed to influence the consumer unhindered.
If the farming lobby then wants policies to redress the balance - these could be refused on the grounds that they go against health policies. In the end, I believe the government is going to have to come up with an alternative approach to agriculture and land use, or abandon the NNFP. There is some degree of resentment (annecdotal evidence from individuals and newspapers) from the urban population that the rural population gets so much of the tax cake in supports and subsidies."

"I do not feel ready to give balanced comments on this issue. It is of course possible to adjust agricultural policy slightly closer to nutritional goals. However, to arrive at a significant change - in health policy as well as nutritional and agricultural policies - will require a different political and economic system. (..). We will, in our planning for research, try to develop a project which looks closer into nutrition policy as part of our political system (..) and explore the political and economic interests that govern the setting of conditions for nutrition policy."

"(..). I cannot assign votes to this proposition since, in my view, there is no way of avoiding either ambiguity or the possibility of outright clash."

"There are a lot of conflicts, but one must, of course, consider both types of goals. (..) the government has many means of achieving these goals; through an appropriate combination of means it is possible to achieve, to some extent, both types of goals. But it is important to make the conflicts clear in order to get efficient policy."

"Of course, some integretion is important. It is worth noting that half of Norway's food supply is imported. (..). Fats from the dairy products are indeed a major problem. Imports of fruit and vegetables are prohibited for a long period each year. If this period were shortened (..) this could create problems for farmers. I do not know how to tackle this problem."

Other comments focussed either on the ability of the NNFP to develop in spite of the existence of conflicting interests in this policy area, or on the identification of areas where convergency of interests between the agricultural and the health sectors is feasible.

"(..) Reports Nos 32 and 11 state the desirability of integration between agricultural and health policies.

Nowadays things are on the move compared with some years ago. At least the terms are given for discussion."

"As regards 14(a) I believe there has been some improvements (for example: skimmed milk); (..). 14(c): low-fat milk; grain (rich in fiber); vegetable and fruit."

"As far as 14(a) is concerned the situation is somewhat improving. 14(b): something can be done, both from the agricultural side and the nutritional side. But both parts must be willing to search a better understanding. 14(c): in the milk sector. 14(d) No judgement."

****

Policy-issue No. 12.:

"Obtain a higher level of cooperation between the State and private industry on nutrition information".

The information distilled from the previous questionnaire suggests that experts must concentrate on the following topics, before tackling the issue:

a) Explore areas where cooperation can be reached (not only with the private industry but also with hotels, food store chains, etc.).

b) Identify possible alternative ways of tackling areas of conflicts.

[Please feel free to comment on each aspect of this issue. Add any proposal(s) you feel relevant to this issue]

Final Rankings: --
Score: 0

Summary of Assessment

This is a complex issue. Two thirds of the participants judged '[3]' its political feasibility. Some of the respondents have pointed out that in this policy area the Norwegian situation is much better that in other Western countries. Some of the comments made were:

"(..). In the ranking of importance I have given '[2]' because I believe that the health information is seen as 'neutral' or as propugated on the people's behalf, whereas the industry advertising/information is seen as 'loaded' or biased. Therefore, although they have a lot of money, industry has to 'work its money harder' in order to achieve impact. I do not think the health lobby has to match industry spending kroner for kroner to achieve a better result."

"I think the situation is fairly satisfactory. The

marketing (often by small firms or health shops) of some special products (..) is in some cases unsatisfactory. This is on the whole a small problem, as false claims can be stopped under the Norwegian law. The marketing by big firms is, on the whole, decent."

"(..). The aim of the food industry is to make a profit, and nutrition information may contribute to this aim. Cooperation is possible to some extent with part of the food industry, though we must be realistic."

"(..). The major obstacles are: (i) lack of ideas and initiatives; and (ii) short-term economic interests."

****

Policy-issue No. 27.:

"Increase the selection of low-fat products, high fibre content products, and improve their marketing".

[Please make suggestions as to how you feel this issue may be best resolved]

Final Rankings: 2;1
Score: 3

Summary of Assessment

For the Delphi panel the resolution of this issue would be desirable but not easy for reasons such as:

"Not easy. Low-fat spread (..) not popular; lean meat can only go so far. I think the visual material and hints on 'making do with less fat' are the only things immediately possible. (..). Fiber is different, and here I think price, availability and the constant advertising are the keys to success. Increasing the fiber in the diet does not harm anyone's sectional interest."

"The results will depend on the outcomes of the resolution of issues Nos 13 and 14."

"Create a demand for the products, (..) with plenty of information on the benefit of such products. Industry will produce what there is a market for (..)."

****

Policy-issue No. 33.:

"Increase budget for research into the relationship between diet and health".

The comments made by respondents in the first Delphi questionnaire would suggest that there is already agreement on the importance on:

a) How to convey existing knowledge to public and policy-making bodies.

b) Setting up action-oriented research project where research findings can be easily utilized within the strategy of the NNFP.

c) Rationalizing present financial support for specific research projects, dealing with 'high-incidence' health problems which are probably casued by unhealthy diets (e.g. cardiovascular diseases, constipation, tooth decay, cancer, etc.).

[Please feel free to comment on each aspect of this issue. Add any proposal(s) you feel relevant to this issue]

Final Rankings: 2;1
Score: 3

Summary of Assessment

The analysis of the panel's judgements revealed that although considered important and thought to have a positive impact, one third of the participants believed that the resolution of this policy issue could face some problems as regards both its technical and political feasibility. The comments reported below reflect this.

"There is the danger here of 'seeking proof' after the event!
Make to much of this issue and it raises the suspicion that the diet/health link may not be so clear after all. While there could be an overall plan for setting up studies and disbursing funds, I think the angle to be emphasized publicly is that of refining existing (and successful) projects like the 'Oslo Study', and of generating new ones along the same lines for other areas."

"Certain. However, what would be important is to relate diet and health to people's living conditions. This means that such research would need a strong component of social sciences."

Comments on specific aspects of the issue were:

"(..). 33(a) is very important and complex too. There is already more knowledge of the relationship between diet and health that is actually used in political decisions. (..)."

"As regards 33(c) there should be constant monitoring of health problems and nutritional developments in the population (..)."

"(..) this issue is important because our knowledge is not

good enough, and is often challenged. 33(b) is important and feasible."

"As regards 33(a) this job is not well done."

"33(b) is definitely a good proposal."

****

Policy-issue No. 10.:

"Use reliable and valid devices (e.g. by the NNC) for assessing the effectiveness of health education in reaching target groups".

In order to resolve this issue judgements distilled from the previous questionnaire would suggest:

a) Introducing evaluation activity as an obligatory part of all projects within the NNFP.

b) Encouraging research in the area of making information messages accurate and simple.

c) Increasing knowledge of health professionals on information and communication techniques.

Final Rankings: 3;3
Score: 6

Summary of Assessment

There was agreement on the importance, feasibility, likelihood of occurence and impact attached to the resolution of this policy issue.

"This, for me, ties in with policy-issue No. 30. By all means insist on evaluation as an obligatory part of all projects for funding - and introduce the idea of properly conceived project proposals, but do not do it piecemeal. The most important thing is to have a core team of evaluators, able to monitor projects, advice on their initiations and development - and perhaps with statutory power to examine any project before or after commencement to see if it will be (or is) capable of yielding scientifically useful results or of achieving the desired behavioural change."

"(..) 10(a,b,c) are all important. We need better methods to evaluate the effectiveness of health education."

"Good suggestions. However, it might be difficult to define some proposals as being within the NNFP - and others not. (..) 33(a) might be too costly."

****

Policy-issue No. 19.:

"Assess availability and selection of food at local level, and improve, from a nutritional point of view, where necessary".

The previous questionnaire revealed concern on the part of the respondents as to the high-price; low quality and scarcity of certain products (e.g. vegetables and fruit) in the more isolated areas of the country.

Final Rankings: --
Score: 0

Summary of Assessment

Assessment varied here. This probably reflect a lack of thorough information on the issue. The rating of importance, technical feasibility, likelihood of occurrence and impact ranged between '[1]' and '[4]' of each scale. The rating of political feasibility showed a split in the panel, one half giving assessment '[3]' and the other '[1]' or '[2]'. Some of the comments were:

"(..). In principle, food cost should not vary as much as it does. The cost of transport to the more isolated areas should be covered by the government."

"This issue is not very relevant."

"I do not possess reliable information to accurately assess this issue. If desirable food is (i) not available or (ii) wrongly priced, then obviously the cause of healthy eating will suffer a setback. So that in importance and impact the rating given is '[1]'. (..)."

****

Policy-issue No. 21.:

"Improve control over the activities of the food industry, in general".

Comments from the previous questionnaire would advise that improved control over the activity of the food industry should go hand in hand with improved relations between the State and the food industry.

[Please give your judgements and comments on where there is more need for control over the food industry sector (e.g. hygiene? Nutritional composition of foods? Prices? Advertisements?]

Final Rankings: 1
Score: 1

Summary of Assessment

The majority of the participants rated importance and impact '[2]', while technical and political feasibility and likelihood of occurrence were rated '[3]'. Most comments were of the following type:

"It could be feasible for certain industries. I think that the present situation is fairly satisfactory (..). However, there is a special need for action in the snack industry and the product ranges of 'street kiosks'."

(..). Control advertising to the extent that misleading information is not permitted (this is done to a considerable extent). This would include 'context' - e.g. eating chocolats as part of the healthy, active swimming, skiing lifestyle."

"Constantly review additives in processed food and ensure that improvements are mandated swiftly. (..). If possible, attempt to curb the movement in all food industries towards ever increasing value added. Perhaps companies should have to justify the development of each new convenience food on either health or social grounds (with 'maintaining employment in the food industry' as one argument but not the most important)."

****

Policy-issue No. 4.:

"Fully integrate the NNFP into preventive medicine as a whole, and to improve the coordination between different preventive measures as a means of attaining the nutrition goals".

The feed-back from the first questionnaire shows there was no agreement on the desirability and feasibility of resolving this policy-issue.

[Please outline:

a) Areas where you consider to be a real possibility for improving integration; and

b) Areas where you feel it would be very difficult to improve integration (at least in the short-run).

An indication of the causes underlying difficulties of integreting NNFP into preventive medicine will be of great importance in our analysis.]

Final Rankings: --

Score: 0

Summary of Assessment

This is another complex issue whose impact, importance and feasibility are still uncertain after the analysis of the final questionnaire.

"I am inclined to agree with commments number 2 on your feedback document: 'Where is preventive medicine.... so how can they be integrated?'
Perhaps the subject has to be tackled at the highest level of all - by changing the thrust (and title) of a ministry: 'Ministry of Health and Preventive Medicine!' (Not a serious suggestion, you understand, in terms of its being taken up!). (..)."

"Very complex issue! When you say 'fully integrate the NNFP' do you mean all aspects - i.e. nutritional, economic, agricultural? Or do you mean the 'nutritional' aspects? It should be possible to integrate these [i.e. the nutritional ones] in the health preventive activities at local level; also in the curriculum of lower schools."

"Preventive medicine as a whole is a low priority sector with limited resources. Health personnel and authorities have to be convinced that the integration of the NNFP into preventive medicine will be economically beneficial."

"(..). I score this differently to policy-issue No. 7 because if government was pro the idea and prepared to allocate funds, the university and academic objections could be quickly overcome. Norwegians are, I believe, highly susceptible to what the outside thinks. The lack of a preventive medicine strategy could be played upon, I suspect."

****

Policy-issue No. 17.:

"Re-arrange current consumer and producer subsidies in order to achieve the policy goals outlined in the Report No. 32".

From the comments made by participants, this issue is seen as closely related to policy-issues Nos. 14 and 29. In assessing this issue you are free to:

a) Outline the possible re-arrangements of current consumer and producer subsidies in order to achieve the policy goals outlined in Report 32;

b) To identify the main areas where the current subsidies conflict with the NNFP, but (where there is) little possibility of re-arrangement exists.

Final Rankings: 1;1;5;2;2
Score: 11

Summary of Assessment

Many respondents pointed out that this issue overlapped with policy-issues Nos 14 and 29. This issue was largely judeged as rather infeasible (the majority rated its technical feasibility '[3]' and its political feasibility '[3]' or '[4]'). Contrasting rating appeared in the assessment of both its importance and potential impact.
The policy area covered by this issue seems therefore to be characterized by high uncertainty which is portrayed by contrasting comments such as:

(..) but we have very little - or no - evaluation of current consumer subsidies and therefore no knowledge of their effect. Many of the food products of which a reduced consumption is recommended have a very low price elasticity. I doubt that rearranging subsidies without a better knowledge of their effect will be worthwhile."

"The nutritional composition of our diet has not been much influenced by price policy in the last 20-30 years. We spend less and less of our income on food. (..) and why should healthy food be cheap? (When buying other things we often pay for quality). (..)."

(..) we lack specific knowledge here!"

"One example: increase subsidies on skimmed milk and/or decrease subsidies on whole milk."

"Milk and dairy products must be considered according to their fat content (e.g. skimmed milk vs. whole milk), other low-fat products should be given priority."

****

NEW POLICY-ISSUES

Policy-issue No. 38.:

"Increased government spending on the various compocomponents (e.g. nutrition education, research, etc.) of the NNFP is required to implement the NNFP".

[Please outline the areas where increased government spending should be given priorities.]

Final Rankings: 4
Score: 4

Summary of Assessment

Importance, impact and technical feasibility were rated rather high by the panel, the vast majority rated the political feasibility of resolving this policy-issue '[3]'. Some of the respondents said this issue overlapped with policy-issue No. 5.
The comments were however rather vague in identifying priority areas for allocating resources.

"(..) health education is important, research is needed (e.g. more information/training on nutrition-related subjects to key personnel, especially at provincial and local levels."

"Research - and especially on ways in which research findings can be transferred into policies."

"Give priority to research, information, subsidies, and also create new jobs for farmers (in their neighbourhood) if production has to be cut."

****

Policy-issue No. 39.:

"The development and fulfilment of the NNFP depends upon a permanent and coherent political commitment by the government(s). Because the goals of the policy are to be achieved over a rather long period of time, this political commitment should be maintained even if changes in the political area do occur".

[Please outline and comment on the ways this issue can be resolved in the future].

Final Ranking: 5;1
Score: 6

Summary of Assessment

This issue was rated as an important one but not highly feasible.

"The commitment is made and has passed into legislation. In theory, there it stays unless deliberately rescinded. There may be a desire among some politicians to let the policy 'sleep' - but I trust the health lobby to keep the issue politically alive. While it may be difficult to sustain a coherent commitment I believe useful piecemeal changes can be wrung from the politicians, so that they can be seen not to backtrack."

"This is probably a main point. However, I find it very difficult to outline ways in which this can be done. First, we ought to know more about nutrition problems in various groups and what lies behind these problem."

"If all those committed to nutrition research and teaching could reach agreement amongst themselves, and rather than bickering amongst each other in newspapers and thereby fuelling doubts in the mind of the public, I think few politicians would dare oppose food programmes and nutrition recommendations.

"Yes, but this is true for most policies (not just for the NNFP)."

****

The following is the list of experts contacted for the Delphi exercise on the NNFP. 21 Experts participated in the first round of the Delphi and 18 continued to the final. For reasons of anonymity (which is often guaranteed to the particiapants in a Delphi exercise) no indication is given as to which of them responded to the various parts of the Delphi exercise.

Mr. J. Aasness, Institute of Economics, University of Oslo.

Dr. G. Botten, Institute of Preventive Medicine, University of Oslo.

Mr. C. Blythe, Social Nutrition Research Unit, Dept. of Nutrition, Queen Elizabeth College, Univerity of London.

Dr. B. Brandtzaeg, Food Section, Royal Norwegian Min. of Social Affairs.

Dr. W. Eide, Institute for Nutrition Research, University of Oslo.

Mr. P. Grue, Director General, Royal Norwegian Min. of Agriculture.

Dr. I. Grund, Health Planning Director, Health Directorate, Royal Norwegian Min. of Social Affairs.

Mr. S. Hauge, Royal Norwegain Min. of Consumer & Government Administration.

Dr. E. Helsing, Institute for Nutrition Research, University of Oslo.

Dr. I. Hyermann, Ullevaal Hospital, Oslo.

Dr. P. Hjørt, National Institute of Public Health.

Mrs. A. Hognestad, Food Section, Royal Norwegian Min. of Social Affairs.

Dr. E. Homb, National Association for Diet and Health.

Dr. P. Leren, Ullevaal Hospital, Oslo.

Dr. A. Løechen, National Nutrition Council of Norway.

Mr. P. Løechsen, Institute for Preventive Medicine, University of Oslo.

Mrs. K. Møllen, National Nutrition Council of Norway.

Dr. E. Mykland, Vice Director, Royal Norwegian Min. of Agriculture.

Dr. K. Norum, Institute for Nutrition Research, University of Oslo; Chairman of the National Nutrition Council of Norway.

Dr. R. Øgard, Royal Norwegian Min. of Agriculture.

Dr. M. Øgrim, Section for Dietary Research, Institute for Nutrition Research, University of Oslo.

Dr. A. Sørheim, Deputy Director Head of Food Division, Health Directorate, Royal Norwegian Min. of Social Affairs.

Mr. A. Tandberg, Nutritionist, Vadso, Finnmark.

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